

CABINET-REAR VIEW DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

Remove all knobs and lay set face down on a soft protective surface. Remove five screws holding rear cover.

Disconnect picture-tube socket, HV anode lead and speaker. Remove convergence and yoke assemblies. Remove three screws holding tuner

and controls to cabinet front; also remove four nuts holding degaussing shield.

Lift chassis from cabinet front. (Lamps are now accessible.)

PICTURE TUBE REMOVAL

Follow Chassis Removal procedure and lift tube from cabinet. Do not lift tube by the neck.

SERVICING IN THE FIELD

CRT IMPLSION PROTECTION AND CLEANING

Implosion protection is an integral part of the picture tube, cleaning accomplished without CRT removal.

FUSE DEVICES

A circuit breaker is used for low-voltage power-supply protection. (See photo, Cabinet-Rear View.)

A 4-amp fuse is used for AC line protection. (See photo, Cabinet-Rear View.)

LAMP ACCESSIBILITY

Tuner assembly must be removed. See Disassembly Instructions.

VHF TUNER

The fine tuning mechanically engages oscillator slug for adjustment (one slug for each channel).

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of the Horizontal

Frequency Control. (See Transistor Placement Chart.)

WIDTH

The width may be varied by adjusting the Horizontal Size Control. (See photo, Cabinet-Rear View.)

FOCUS

The focus may be varied by connecting the lead from pin F to points F1, F2, or F3. (See photo, Cabinet-Rear View.)

AGC

The AGC may be varied by Tuner AGC and IF AGC controls. (See Transistor Placement Chart.)

CENTERING

Horizontal centering is accomplished by proper adjustment of the horizontal centering control. (See photo, Cabinet-Rear View.)

Vertical centering is accomplished by connecting the vertical centering jumper to R564 or R565. (See photo, Cabinet-Rear View.)

SET 1389 FOLDER 3

SONY CHASSIS
SCC-17A-C, SCC-17B-C

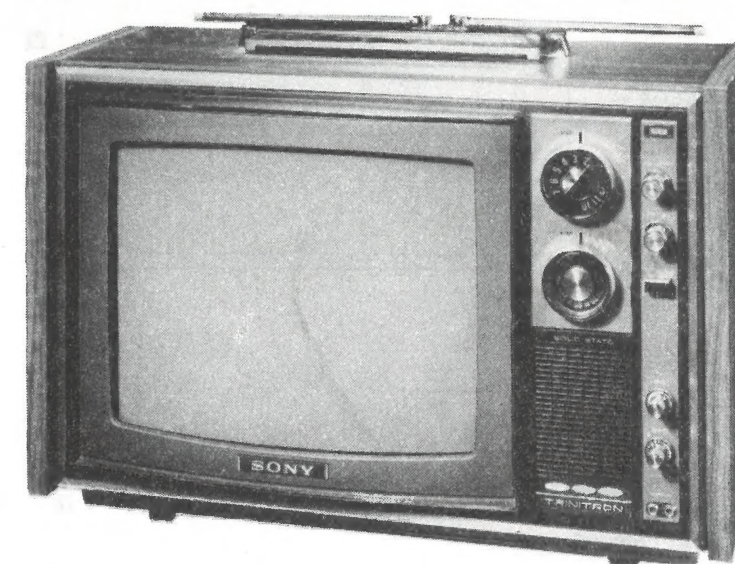
PHOTOFACT® Folder

with CIRCUITRACE

For Supplier Address See PHOTOFACT Index

SONY CHASSIS
SCC-17A-C, SCC-17B-C

COLOR TV



MODEL KV-1212

SAFETY PRECAUTIONS

Make sure line voltage does not exceed rating of set. Check high-voltage regulation and adjust to correct value.

Be sure shields and rear cover are in place and secure.

Beware of shock from high voltage or AC line. Discharge high voltage to HV cage only.

Use extreme care when handling picture tube. Do not bump, scratch, or exert undue strain.

INDEX

	Page		Page
Alignment		Photos (Continued)	
Tuner	23	Deflection Board	13,14,26,27,28
TV	4,37	Horizontal Output, Converter	25
Block Diagram	39	Power Regulator Board	15
Convergence Adjustments (See Miscellaneous Adjustments)		Signal and Chroma Board	6 thru 12, & 29 thru 35
Disassembly Instructions	41	Tuner Assembly	40
Miscellaneous Adjustments	38	UHF Tuner	17
Parts List		VHF Tuner	18,23
TV	19,20,21,22	Resistance Measurements	36
UHF Tuner	24	Schematics	
VHF Tuner	24	TV	2,3
Photos		UHF Tuner	17
Auto, AFT Switch Board	3	VHF Tuner	18
Cabinet-Rear View	41	Servicing in the Field	41
Chassis-Rear View	40	Transistor Placement Chart	5
Convergence	25	Troubleshooting Check Chart	36
CRT Socket Board	16		

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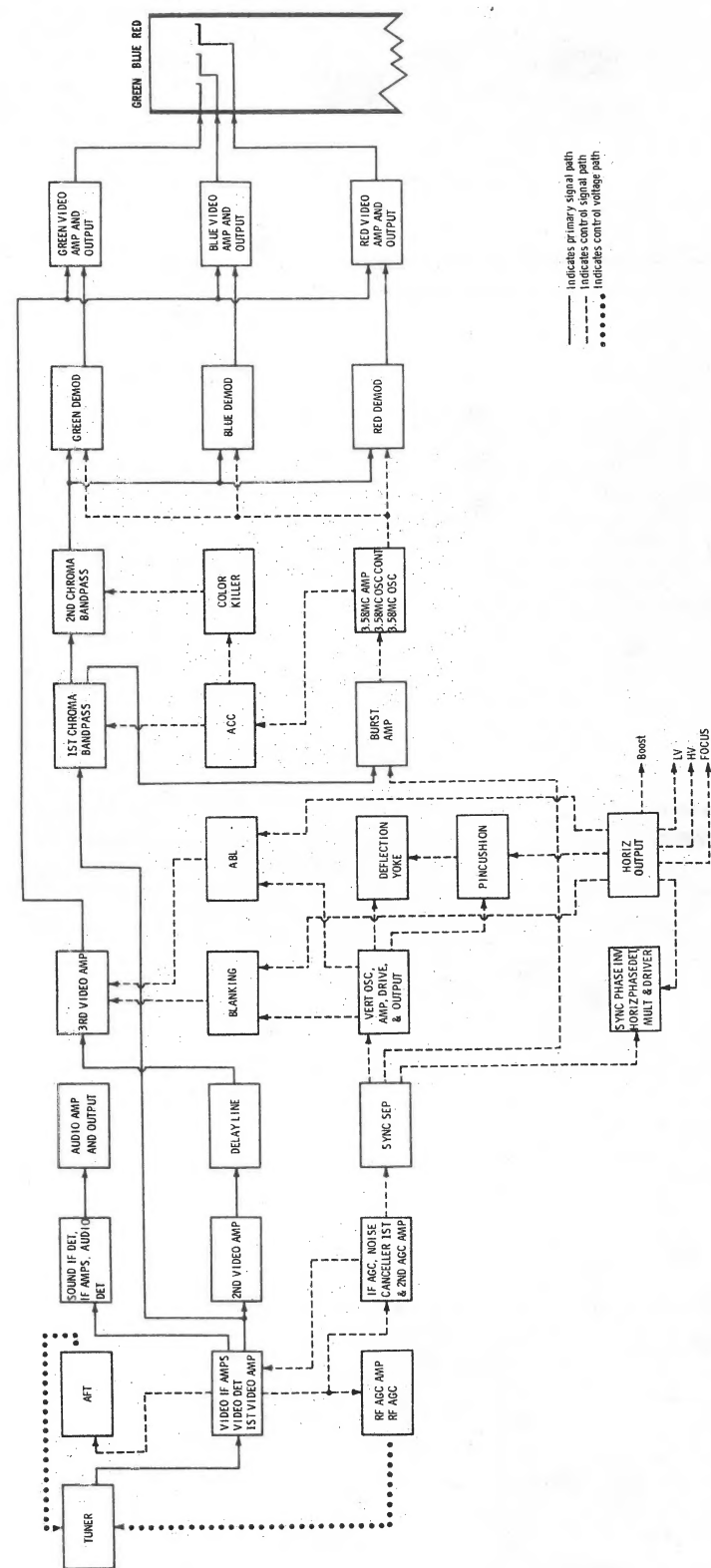
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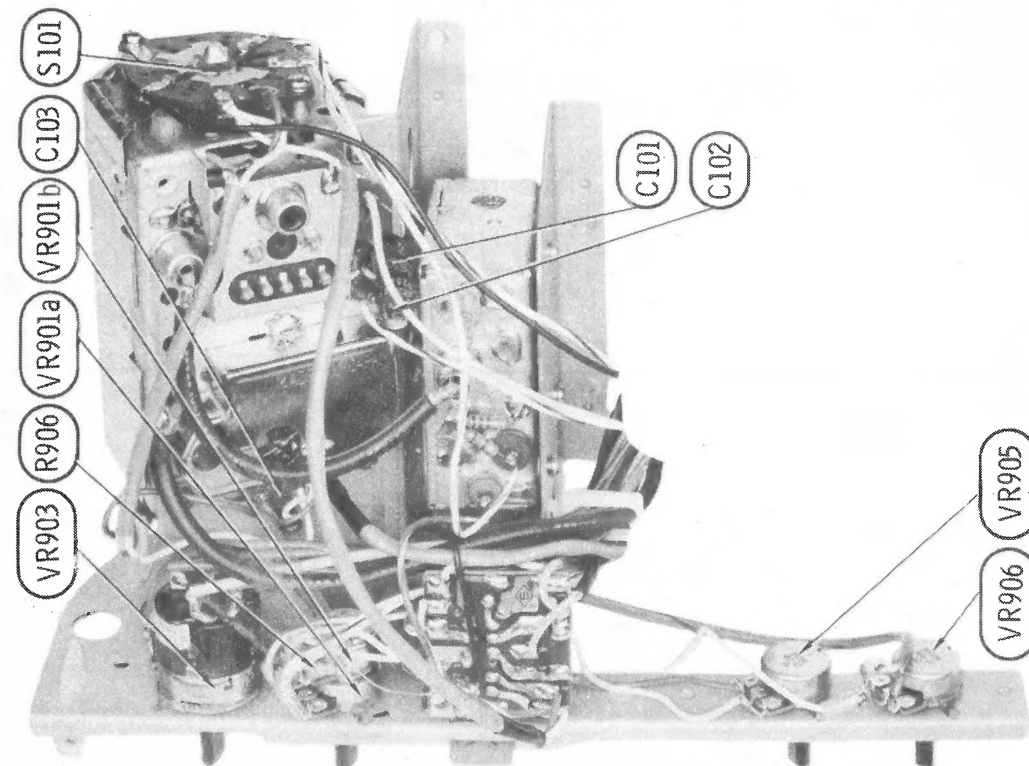
SET 1389 FOLDER 3

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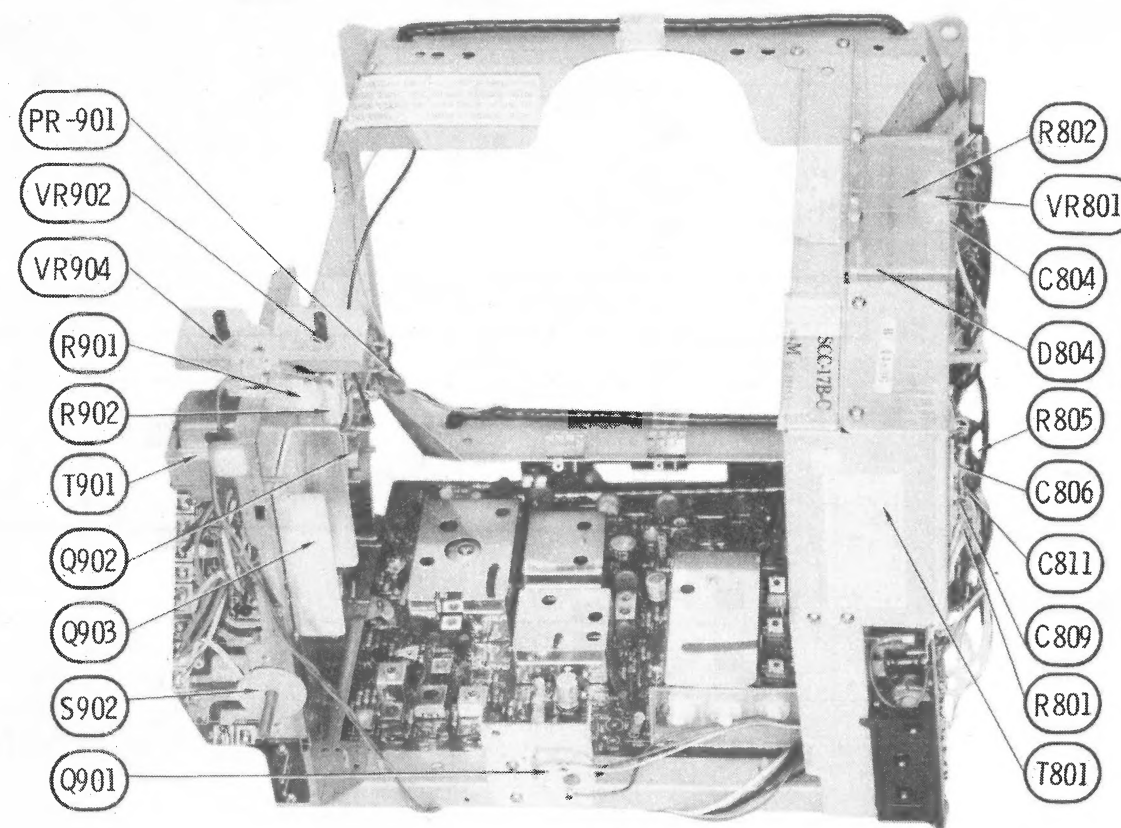
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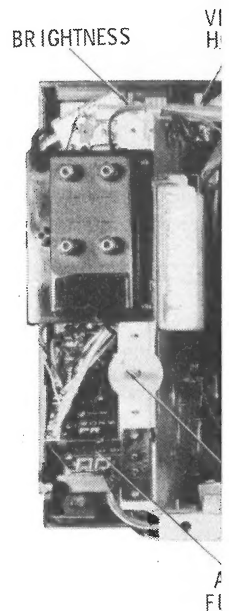
BLOCK DIAGRAM



TUNER ASSEMBLY



CHASSIS-REAR VIEW



CHASSIS REMOVAL

Remove all knobs and lay set face
soft protective surface. Remove :
holding rear cover.

Disconnect picture-tube socket, H and speaker. Remove convergence assemblies. Remove three screws holding

CRT IMPLOSION PROTECTION AND CLEAN

Implosion protection is an integral picture tube, cleaning accomplished by removal.

FUSE DEVICES

A circuit breaker is used for low-power-supply protection. (See photo Rear View.)

A 4-amp fuse is used for AC line]
(See photo, Cabinet-Rear View.)

LAMP ACCESSIBILITY

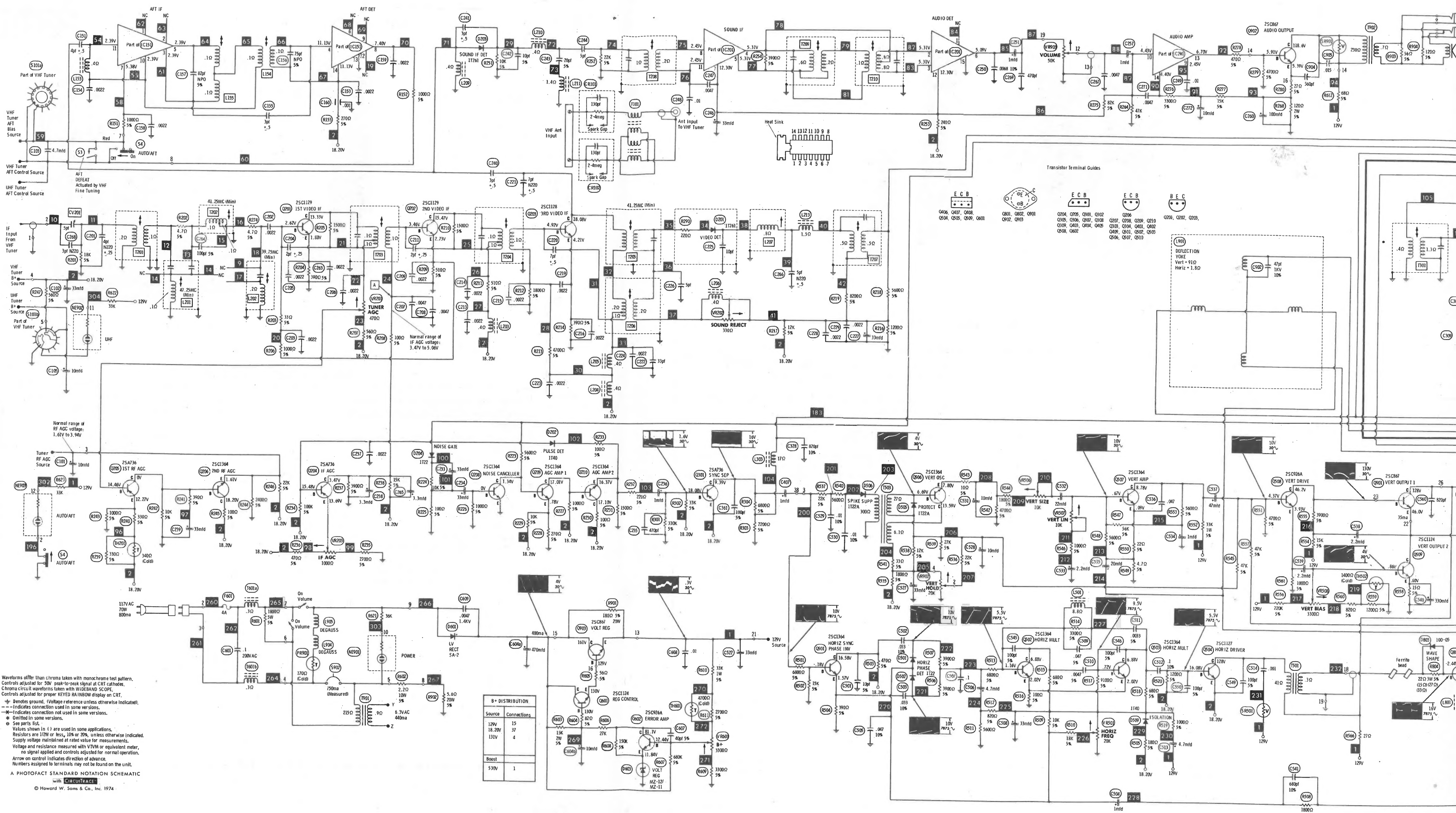
Tuner assembly must be removed. See Tuner Assembly Instructions.

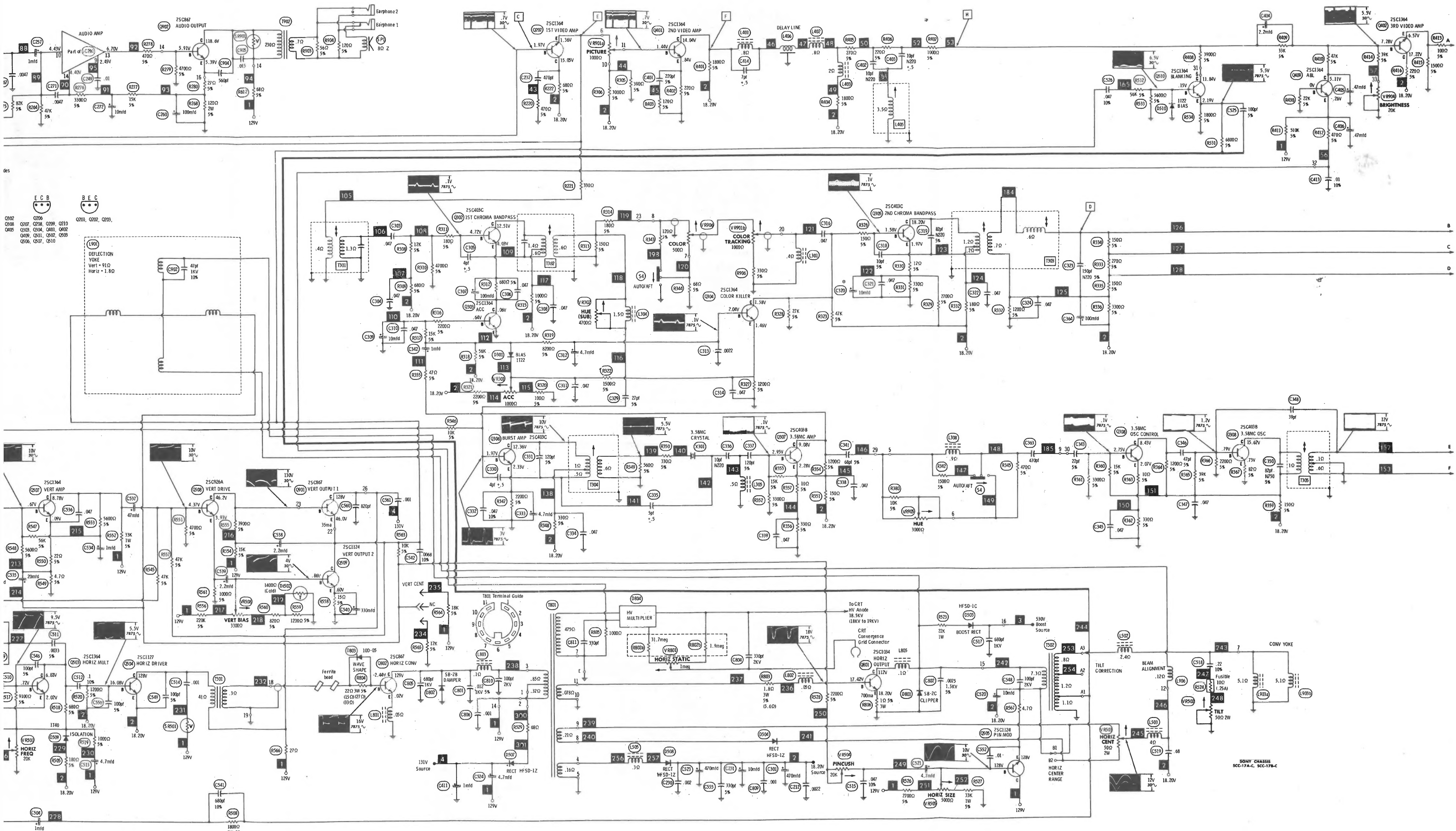
VHF TUNER

The fine tuning mechanically engaged slug for adjustment (one slug for

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold
plished by the proper setting of 1





SONY CHASSIS
SCC-17A-C, SCC-17B-C

MISCELLANEOUS ADJUSTMENTS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Tune in a TV station and adjust all controls for normal operation. Adjust Horizontal Frequency control, VR501 for proper horizontal sync. Switch from channel to channel for a check of horizontal lockin.

Adjust Horizontal Centering, VR503 for proper centering. A jumper wire is provided (see schematic) for greater range of horizontal centering. Horizontal Size control, VR505 should be adjusted to obtain proper width. Focus jumper on T board should be connected to give best focus (see schematic.)

130 VOLT ADJUSTMENT

Tune in a TV station and adjust all controls for normal operation. Connect the DC probe of a VTVM to Terminal 11 on the power board (PR), common lead to ground. Adjust VR601 to obtain 130 volts at 120VAC input.

AGC ADJUSTMENTS

The Tuner AGC control, VR201 should be adjusted using a strong signal. Tune in strong local signal and adjust VR201 for maximum contrast and MINIMUM snow. Adjust IF AGC control, VR203 for maximum contrast and MINIMUM distortion (jitter, pulling, etc.). Repeat as needed.

COLOR OSCILLATOR TRANSFORMER ADJUSTMENT

Connect a keyed rainbow generator to the antenna terminals and tune in a rainbow pattern. Adjust T305 for a color-distortion-free picture. Retouch T305 for proper rainbow pattern with control set to center range position.

BURST AMP ADJUSTMENT

Connect a keyed rainbow generator to the antenna terminals and tune in a rainbow pattern. Connect the vertical lead of scope to secondary of T304, low side to ground. Adjust T304 for maximum burst.

COLOR AFC ADJUSTMENT

Connect a keyed rainbow generator to the antenna terminals and tune in a rainbow pattern. Turn hue control to center range position. Turn picture control to 3/4 range position. Push Auto/AFT to off position. Adjust the fine tuning knob to obtain best picture. Turn color and brightness control for normal viewing. Connect the vertical input of an oscilloscope to CRT Socket Board terminal B. Check waveform on schematic for pattern obtained using a keyed rainbow generator. Retouch hue control on front panel if necessary.

Note: Fixed components are used to adjust phase of red and green waveforms. Therefore, correct R-Y (CRT Socket Board terminal R) and G-Y (CRT Socket Board terminal G) should be proper if B-Y waveform is correct. If unable to obtain proper B-Y waveform retouch T304.

AUTOMATIC COLOR CONTROL ADJUSTMENT

Tune in a weak color signal or reduce the signal at the antenna terminals. Adjust ACC control, VR301 for color elimination. Turn ACC control back until best undistorted color pattern is obtained.

PURITY ADJUSTMENT

Connect a keyed rainbow generator to the antenna terminals. Tune in a purity pattern. If the picture appears to be magnetized, use a degaussing coil to demagnetize tube and mounting brackets. Switch generator to a dot pattern. Adjust Horizontal Static control (VR801) (H-STAT) for best convergence at center of the screen. Loosen the deflection yoke and move it rearward until it is against the coil assembly. Turn the red background and the blue background controls fully counterclockwise. Turn the green background control to fully clockwise position. Adjust the purity magnet (mounted at the rear of the deflection yoke) until a wide green vertical bar is centered on the screen. Move yoke forward until the screen appears to have a uniform green raster. Lock deflection yoke in place. Reduce the green background control perform gray scale adjustments.

GRAY SCALE ADJUSTMENT

Turn red, green, and blue background controls to center range position. Turn brightness and contrast (Picture) to MINIMUM. Adjust screen control VR701 (on CRT Socket Board) until raster just disappears. Advance background controls, one at a time, until a barely visible gray raster appears on screen. Adjust brightness and contrast (Picture) for normal viewing tune in a black and white picture or a color picture with the color control set at MINIMUM. Adjust contrast for normal viewing. Retouch red, blue and/or green drive controls to eliminate coloring in the bright areas of the picture.

DYNAMIC PINCUSHION ADJUSTMENT

The vertical linearity, the horizontal size, the horizontal centering and H. STAT adjustments should be completed before adjusting VR504 (PIN). Connect a crosshatch generator to the antenna terminals. Turn picture control fully counterclockwise position. Adjust VR504 for normal crosshatch pattern (straight vertical and horizontal lines). Readjust vertical and horizontal size controls.

BEAM LANDING ADJUSTMENTS

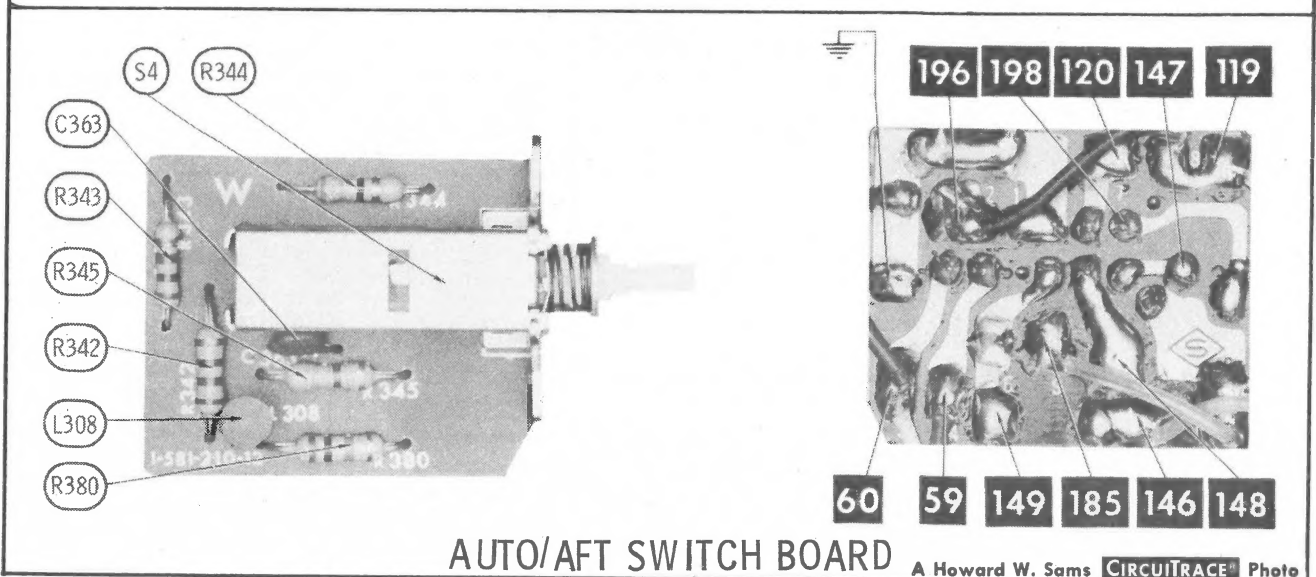
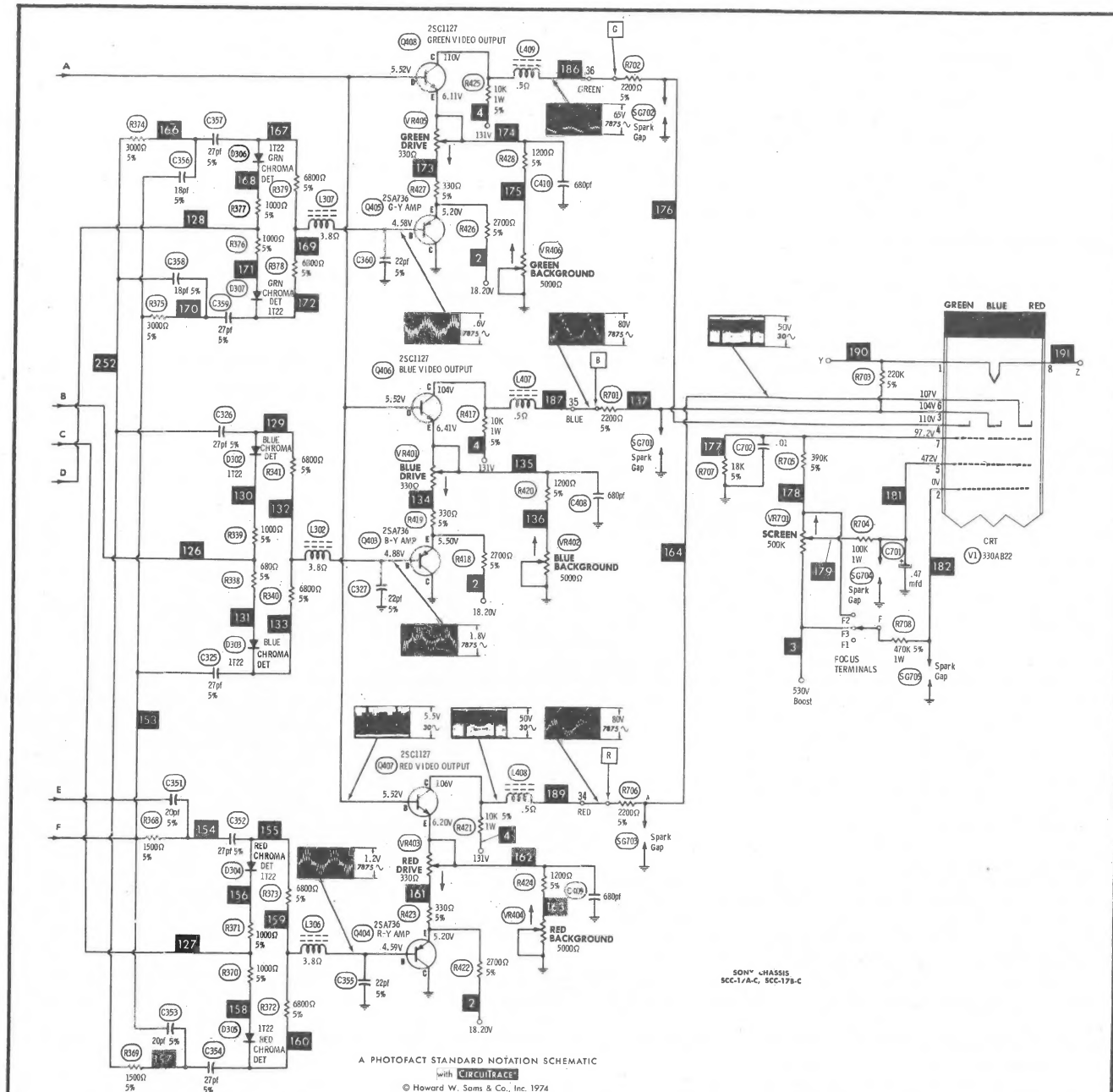
Beam landing adjustment tab or tabs located near the rear of the picture tube neck are used to obtain a correct beam landing at the center of the screen. Connect a keyed rainbow generator to the antenna terminals and tune in a dot pattern and set all controls for normal reception. Either one or two horseshoe shaped sliding plastic assemblies containing small permanent magnets are used for center dot convergence. Adjust the tab or tabs to obtain a color free crosshatch pattern at the center of the screen. If necessary to obtain center dot convergence by adjusting horizontal static and or vertical static adjustments. Disc magnets taped to plastic yoke mounting bracket or to glass bell of the picture tube near the yoke mounting bracket are used to correct for beam landings in the extreme corners. These magnets are factory preset and should not need further adjustment. If necessary move magnets and resecure until satisfactory results are obtained.

HORIZONTAL STATIC CONVERGENCE

Adjust horizontal static convergence for pure overall crosshatch pattern.

VERTICAL STATIC CONVERGENCE

Adjust vertical static convergence for pure overall crosshatch pattern.



AUTO/AFT SWITCH BOARD

A HOWARD W. SAM'S CIRCUITRACE PHOTO

SONY CHASSIS
SCC-17A-C, SCC-17B-C

FOLDER 3

TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain line voltage at 120VAC. Allow a 20-minute warm-up period for receiver and test equipment.

Suggested Alignment Tools: GC ELECTRONICS
T201, T203, T204, T206, T207 thru T210, T301, T302, T303 (both cores), T304, T305, L207 and L405 9440
T202, T205, L201, L202, L154, L155 and
Tuner IF Output Coil, T1 9296, 9297, 9300
CV201 8728

PRELIMINARY INSTRUCTIONS

Set the channel selector to the highest unused channel. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication.
Note: Response may vary slightly from that shown.
Connect a 0 to 7 volt bias supply to IF AGC line (collector of Q204), low side to ground.
Adjust to obtain a response which shows no overload. Connect a 2.2 volt bias supply to Tuner AGC line Point T on VHF tuner, low side to ground.

VIDEO IF ALIGNMENT

CONNECT SCOPE	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
Vertical input to Point C, low side to ground.	Thru .001mfd to Point U on VHF tuner, low side to ground.	44MC (10MC Sweep)	39.75MC 41.25MC 47.25MC	Adjust L202 for MINIMUM. Adjust T205, T202 and VR202 for MINIMUM. (VR202 produces slight distortion in left side until adjusted properly.) Adjust L201 for MINIMUM. See Fig. 1.
"	"	"	39.75MC 41.25MC 42.17MC 44.25MC 45.75MC 47.25MC	Adjust T206, T204 and T203 for maximum gain and symmetry of response similar to Fig. 2. Adjust CV201 and Tuner IF output coil for placement of the 42.17MC marker. Adjust T201 for flat response. Retouch As needed to obtain response with markers as shown. See Fig. 2.

4.5MC TRAP ALIGNMENT

Tune in a strong TV signal and set the contrast at maximum. Adjust the fine tuning until a beat pattern is visible on the screen. Adjust T207 for MINIMUM beat interference.

VIDEO DETECTOR COIL ADJUSTMENT

Adjust L207 for best picture detail and picture stability.

AFT ALIGNMENT

CONNECT SCOPE	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
Vertical input to R151 (unconnected end), low side to ground.	Thru .001mfd to Point U, on VHF tuner, low side to ground.	44MC (10MC Sweep)	45.75MC	Adjust L155 centering 45.75MC cros over. Adjust L154 for maximum gain and symmetry (equal "S" curve). See Fig. 5. Resolder red lead to R151. Tune in a local color broadcast station. Fine tune for best picture detail (Auto/AFT in Off position). Switch Auto/AFT to On position and retouch L155.to obtain a picture which shows no change while switching Auto/AFT from on to off. Check for proper AFT action.

TV ALIGNMENT INSTRUCTIONS (Continued)

CHROMA BANDPASS ALIGNMENT

Connect as explained in preliminary instructions. Set color control to maximum, tint control to mid-range. Connect a short jumper from the emitter to the base of Q304.

CONNECT SCOPE	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
Vertical input thru detector probe to Point D, low side to ground.	Thru .1mfd to Point E, low side to ground.	3.58MC (3-5MC Sweep)	3.08MC 3.58MC 4.08MC	Adjust both cores of T303 and T302 for maximum gain and symmetry of response similar to Fig. 3.
"	Thru .001mfd to Point U, on VHF tuner, low side to ground.	44MC (10MC Sweep)	3.08MC 3.58MC 4.08MC (4.5MC Trap)	Adjust T301 for maximum gain and symmetry of response similar to Fig. 4. If necessary, retouch T303 (both cores) and T302 to obtain response similar to Fig. 4. Inability to obtain proper bandpass alignment may be due to misadjustment of the 4.5MC trap. Adjust T207 for MINIMUM at 4.5MC. Remove jumper from Q304.

SOUND IF ALIGNMENT

Tune in a station and adjust T210 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce the signal while aligning for undistorted output by adjusting T209 and T208.

3.58MC TRAP ALIGNMENT

Unplug the TV set and connect a signal generator through a .05mfd capacitor to Point F. Connect the vertical input of an oscilloscope to Point H, low side to ground. Adjust signal strength to give a usable indication at 3.58MC. Adjust L405 for MINIMUM.

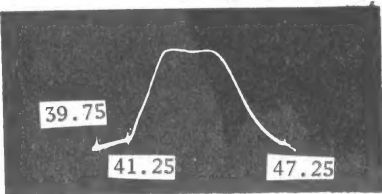


FIG. 1

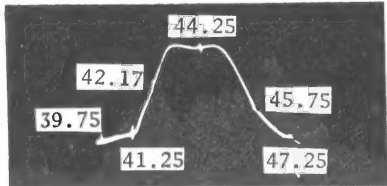


FIG. 2

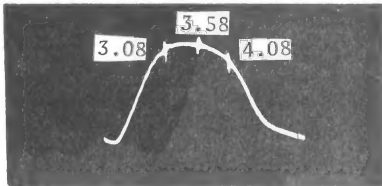


FIG. 3

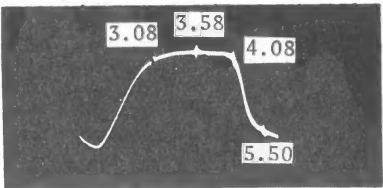


FIG. 4

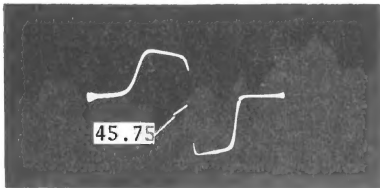


FIG. 5

SONY CHASSIS
SCC-17A-C, SCC-17B-C

FOLDER 3

RESISTANCE MEASUREMENTS

ITEM	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	PIN 13	PIN 14
CRT	FIL	470K	24K	24K	850K	24K	16K	FIL						
MEASUREMENTS BELOW TAKEN WITH METER HAVING .08V MAX BETWEEN PROBE TIPS														
IC151	NC	NC	3200Ω	550Ω	3200Ω	NC	10K	10K	NC	3200Ω	3200Ω	NC	0Ω	550Ω
IC201	NC	4600Ω	4600Ω	4600Ω	4600Ω	1NF	520Ω	1NF	10K	30K	1NF	520Ω	4800Ω	18K
ITEM	E	B	C		ITEM	E	B	C		ITEM	E	B	C	
VHF - Q1	220Ω	4200Ω	750Ω		Q304	650Ω	20K	17K		Q503	100Ω	10K	2000Ω	
VHF - Q2	220Ω	1600Ω	1300Ω		Q305	300Ω	17K	470Ω		Q504	300Ω	1500Ω	14K *	
VHF - Q3	2200Ω	3700Ω	300Ω		Q306	2200Ω	12K	5800Ω		Q505	1meg *	15K *	14K *	
UHF - Q1	330Ω	900Ω	700Ω		Q307	340Ω	2700Ω	1600Ω		Q506	4400Ω	6000Ω	1800Ω	
Q201	390Ω	1500Ω	1300Ω		Q308	340Ω	2700Ω	1600Ω		Q507	26Ω	5000Ω	28K	
Q202	500Ω	3100Ω	800Ω		Q309	82Ω	2000Ω	420Ω		Q508	1000Ω	4200Ω	35K •	
Q203	390Ω	1300Ω	300Ω		Q401	220Ω	220Ω	1200Ω		Q509	15Ω	3200Ω	50K	
Q204	1000Ω	100K	3000Ω		Q402	1500Ω	19K	500Ω		Q510	1400Ω	4500Ω	6500Ω	
Q205	450Ω	1100Ω	10K		Q403	2000Ω	18K	0Ω		Q601	300K •	28K *	14K *	
Q206	2100Ω	10K	390Ω		Q404	1800Ω	17K	0Ω		Q602	500K •	3300Ω *	65K *	
Q207	190Ω	4000Ω	850Ω		Q405	1600Ω	17K	0Ω		Q801	270Ω	290Ω	1meg	
Q208	0Ω	1000Ω	5500Ω		Q406	2000Ω	1500Ω	21K		Q802	0Ω	22Ω	14K *	
Q209	270Ω	5500Ω	1300Ω		Q407	1800Ω	1500Ω	21K		Q901	50K	35K •	14K *	
Q210	1500Ω	1300Ω	390Ω		Q408	1600Ω	1600Ω	21K		Q902	150Ω	4500Ω	13K *	
Q301	290Ω	30K	9000Ω		Q409	8000Ω	22K	65K		Q903	13K *	300K •	14K *	
Q302	1NF •	3600Ω	1300Ω		Q501	390Ω	12K	750Ω						
Q303	0Ω	30K	1NF •		Q502	100Ω	30K	2000Ω						

* THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT
• READING DEPENDS UPON POLARITY OF METER CONNECTIONS.

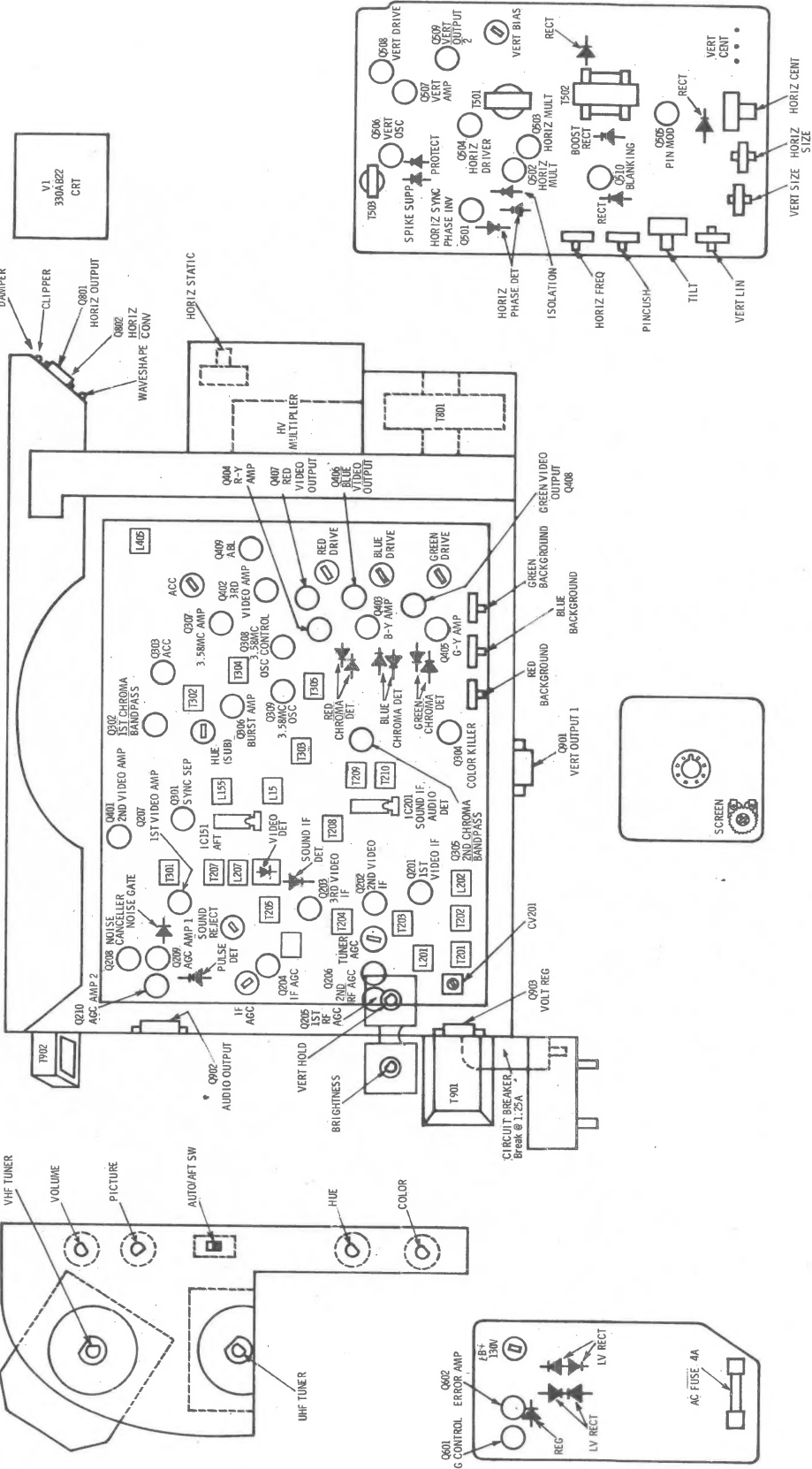
NC NO CONNECTION
INF INFINITE

TROUBLESHOOTING CHECK CHART

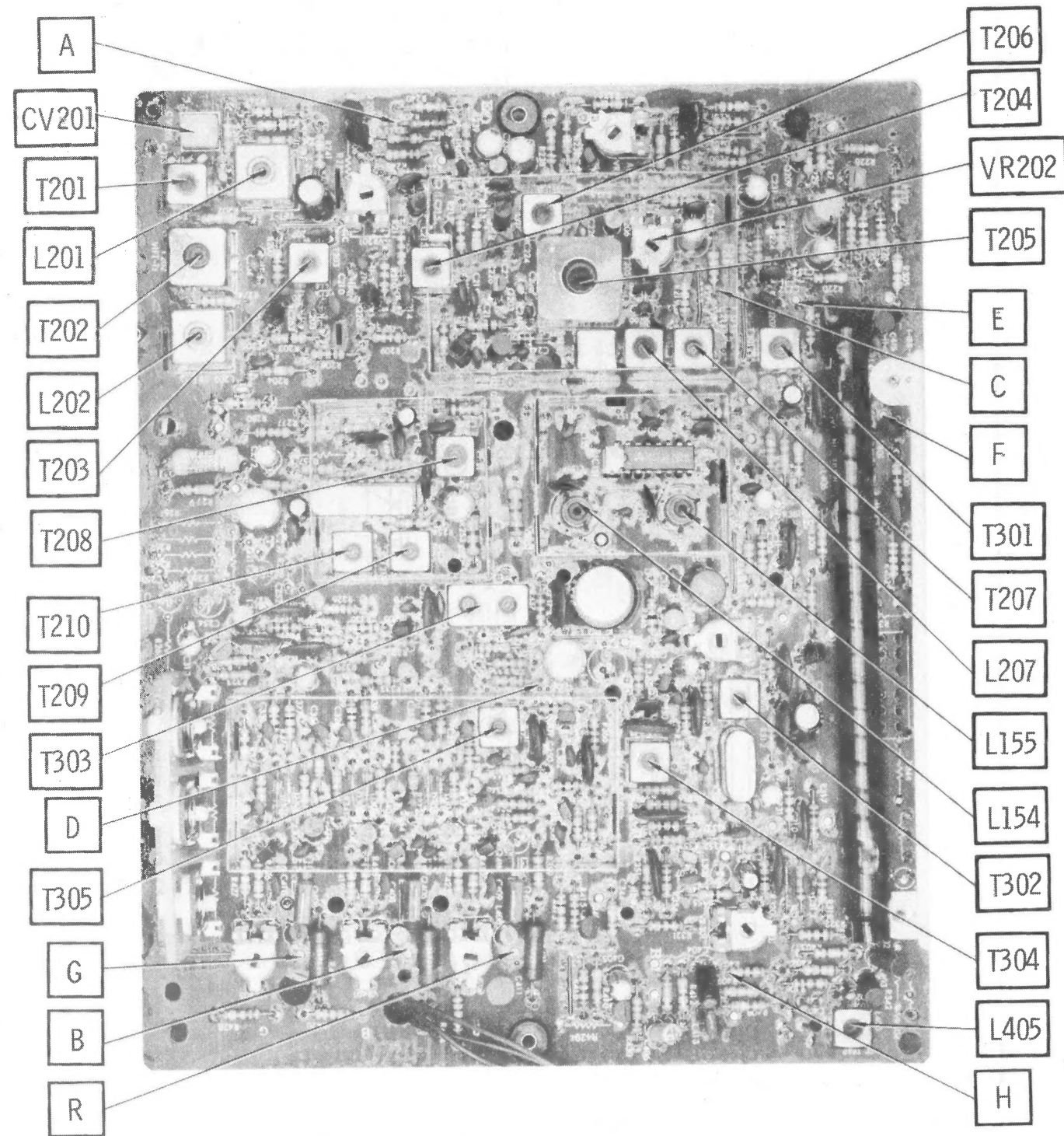
The following chart lists component failures most likely to produce the indicated symptoms.

PICTURE or SOUND No pic, no sound, no raster: Circuit Breaker, Fuse, LV Rect , Volt Reg, Reg Control, Error Amp No pic, no sound, has raster: Video IFs, Tuner Mixer No pic, no sound, has snow: Tuner RF/Mixer/Osc No pic, has sound, no raster: Video Outputs, CRT No pic, has sound, has raster: Video Amps/Outputs Has pic, no sound: Sound IF Det, Sound IF, Audio Det/Amp Overloaded picture: AGC, Video Det Low or excessive brightness: 18.20V Source, ABL, Blanking SWEEP No raster, has sound: Horiz Mult/Conv/Output/Damper, HV Rect, CRT No vert deflection: Vert Osc/Amp/Drive/Outputs Poor vert lin or foldover: Vert Osc/Amp/Drive/Outputs Poor horiz lin or foldover: Horiz Output, Damper Narrow picture: LV Rect , Volt Reg, Horiz Mult/Conv/Output, Damper Vert off frequency: Vert Osc Horiz off frequency: Horiz Sync Phase Inv/Phase Det/Mult	SYNC No vert sync: Vert Osc No horiz sync: Horiz Sync Phase Inv/Phase Det/Mult No vert/horiz sync: AGC 1/AGC 2/Sync Sep RASTER Yellow (no blue): B-Y Amp, Blue Video, CRT Cyan (no red): R-Y Amp, Red Video, CRT Magenta (no green): G-Y Amp, Green Video CRT COLOR (B/W operating normally) No color: Killer, Burst, Chroma Bandpass Weak color: Chroma Bandpass No color Sync: Burst, 3.58MC Amp/Control/Osc No blue: Blue Chroma Det, B-Y Amp No red: Red Chroma Det, R-Y Amp No green: Grn Chroma Det, G-Y Amp Incorrect hue (tint): Burst, Chroma Dets
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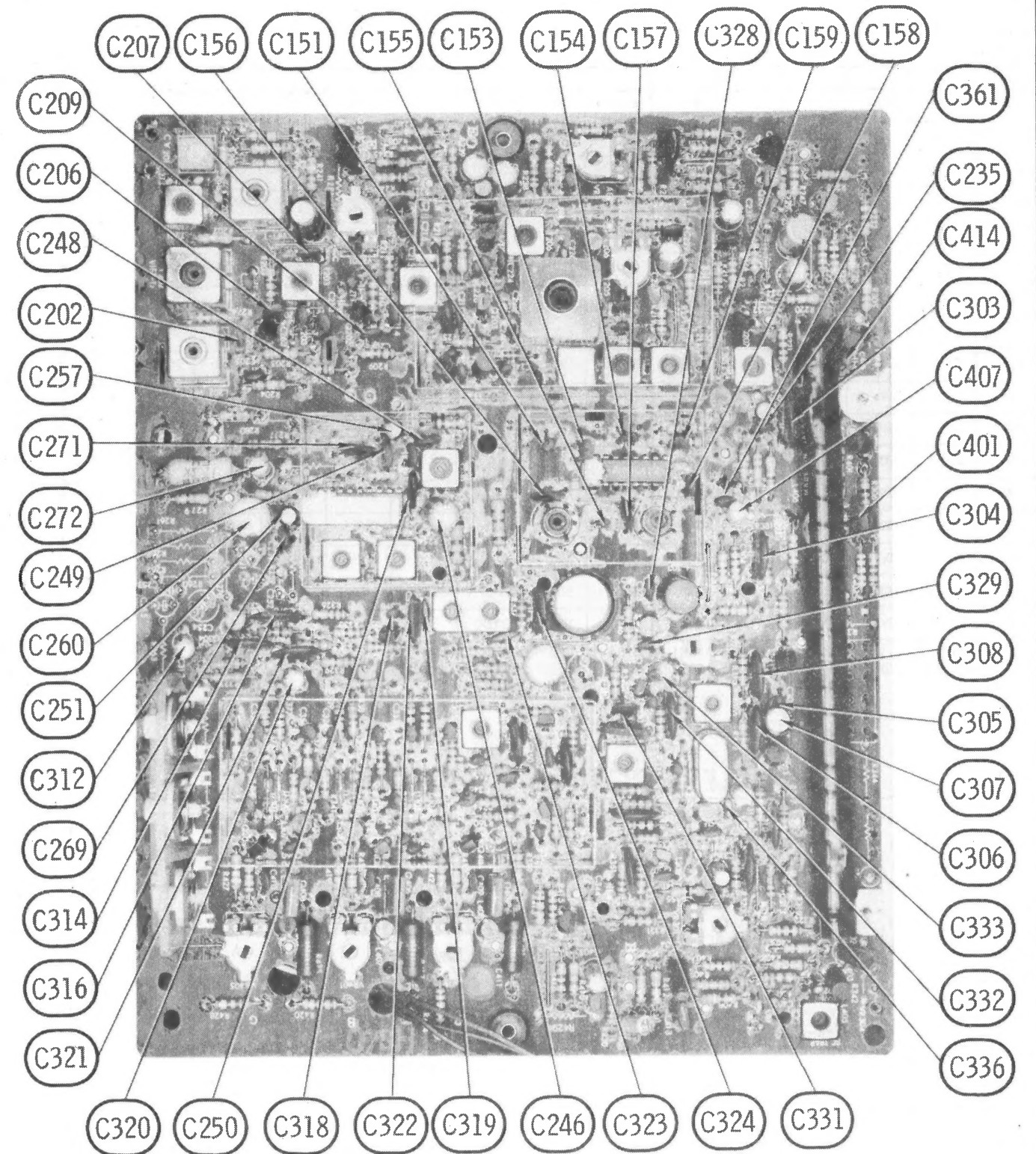
A series filament circuit is used; an open filament in any tube will cause the set to be inoperative.

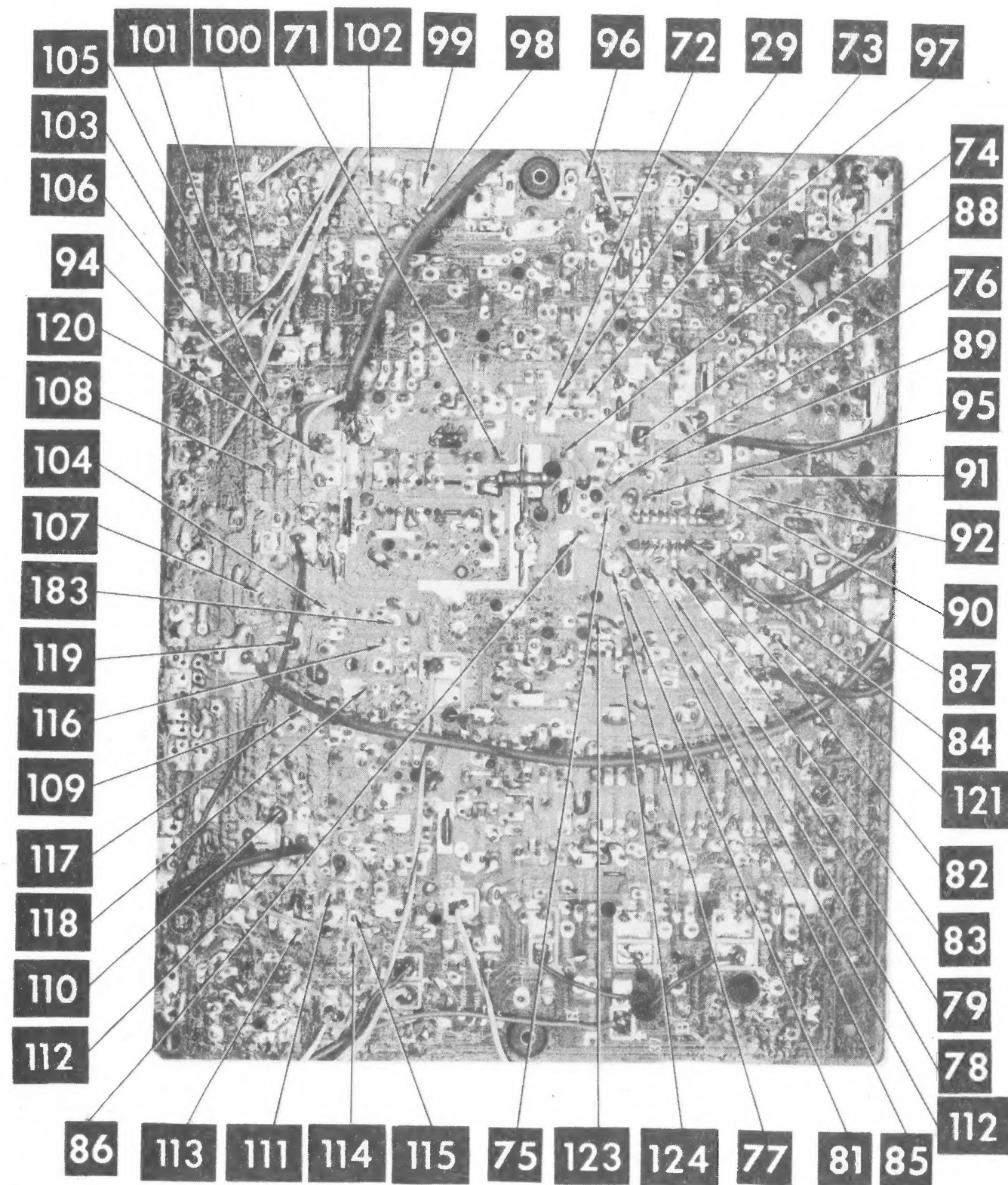
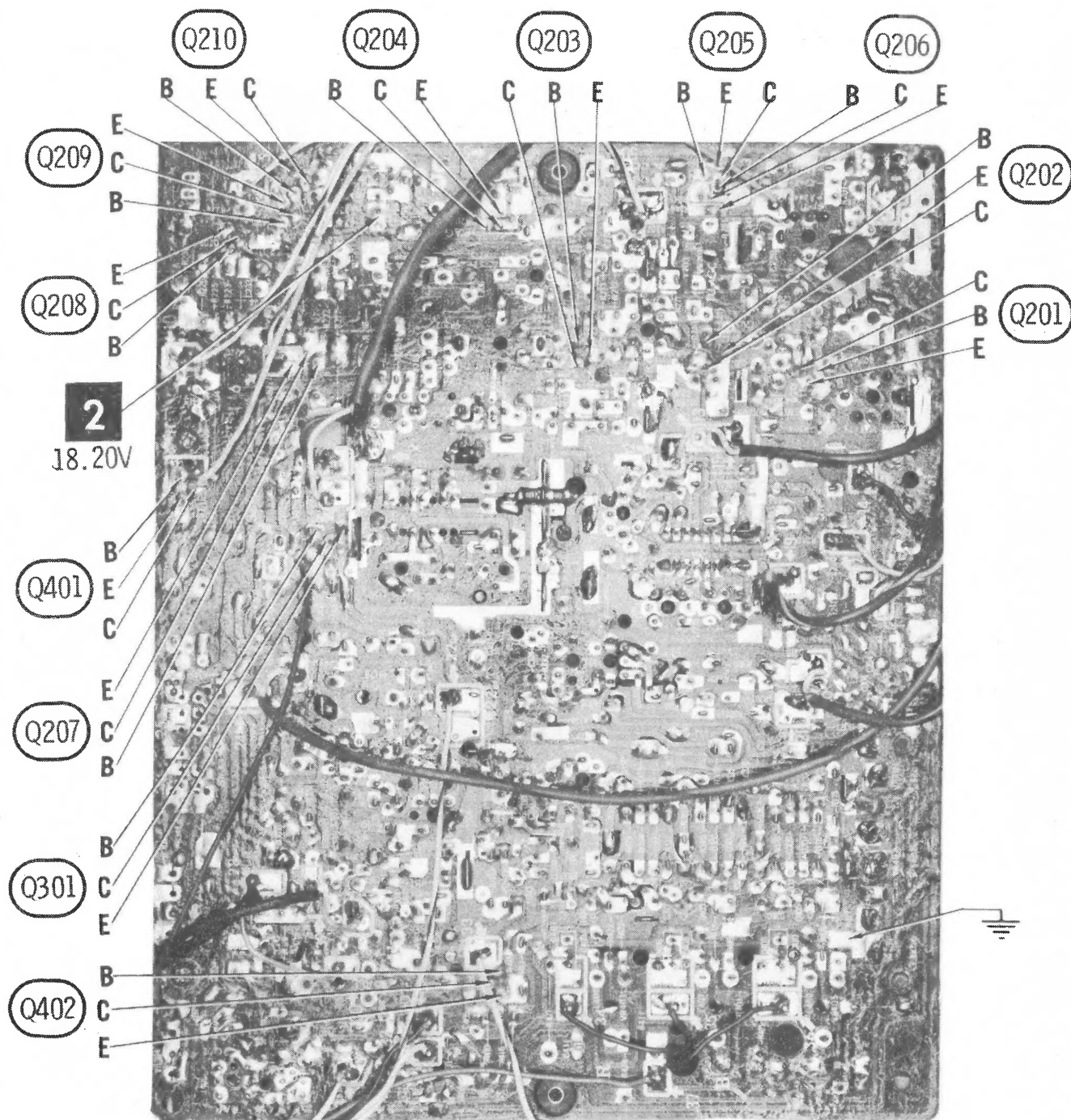


TRANSISTOR PLACEMENT CHART



SIGNAL AND CHROMA BOARD

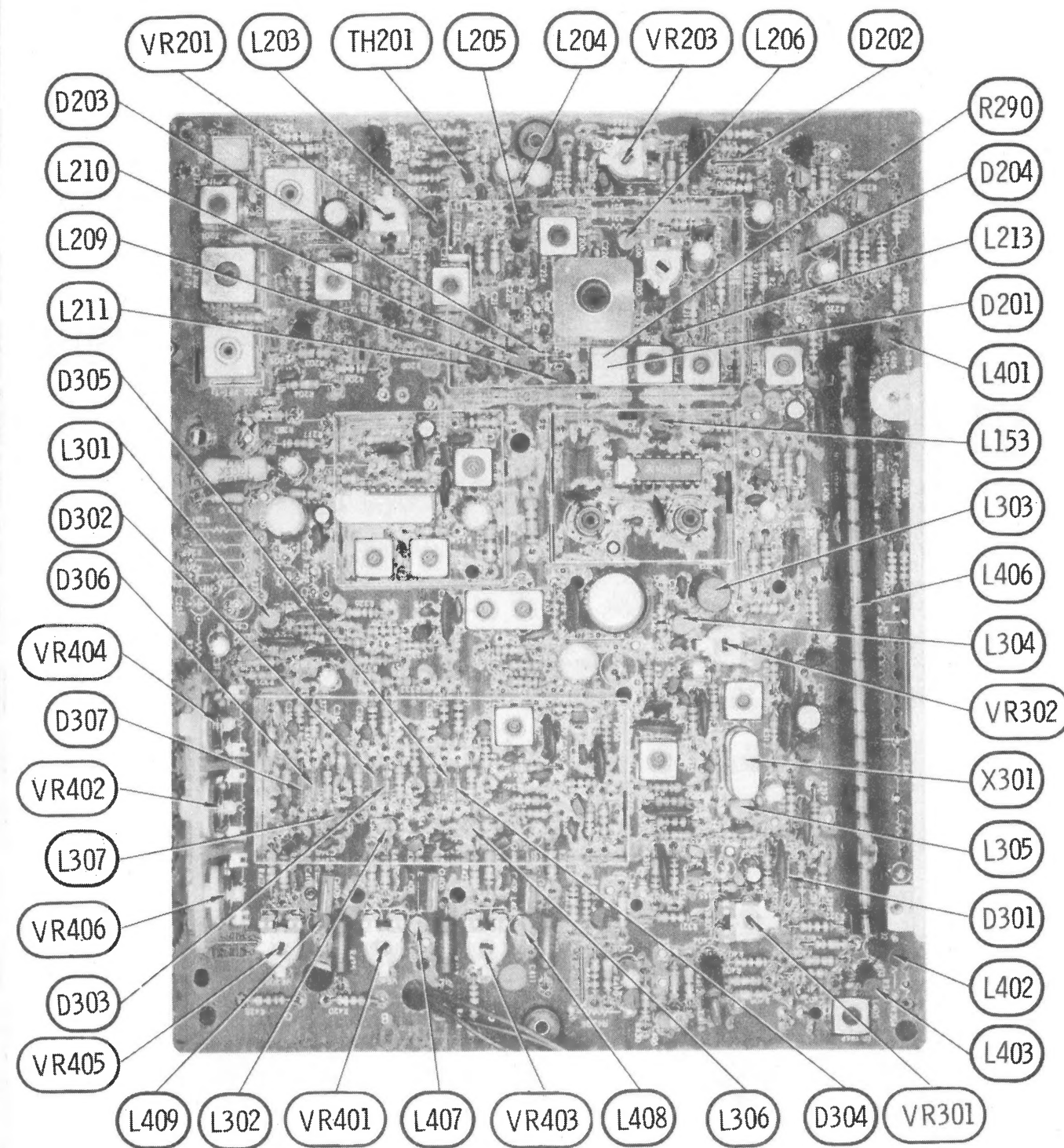
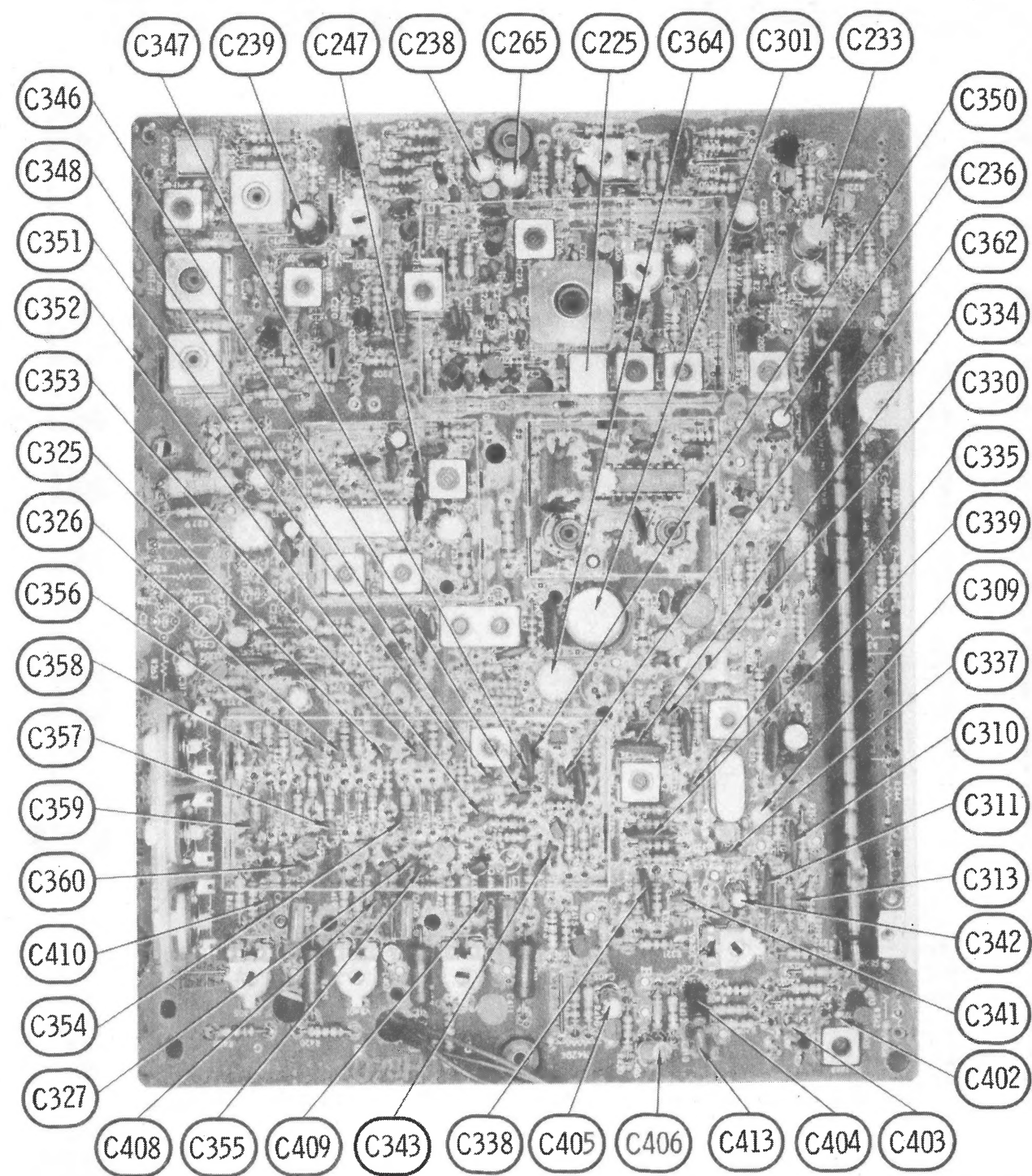




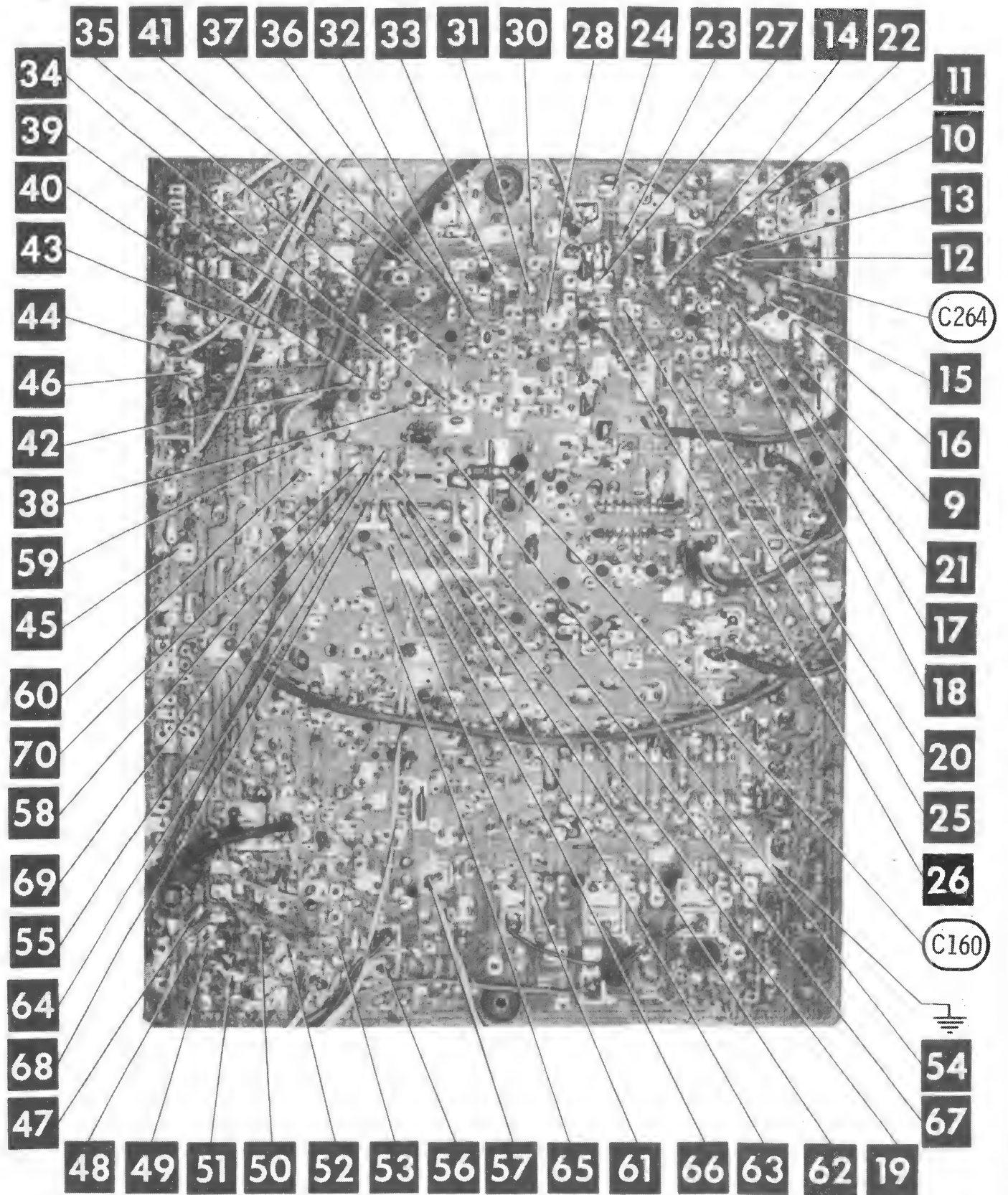
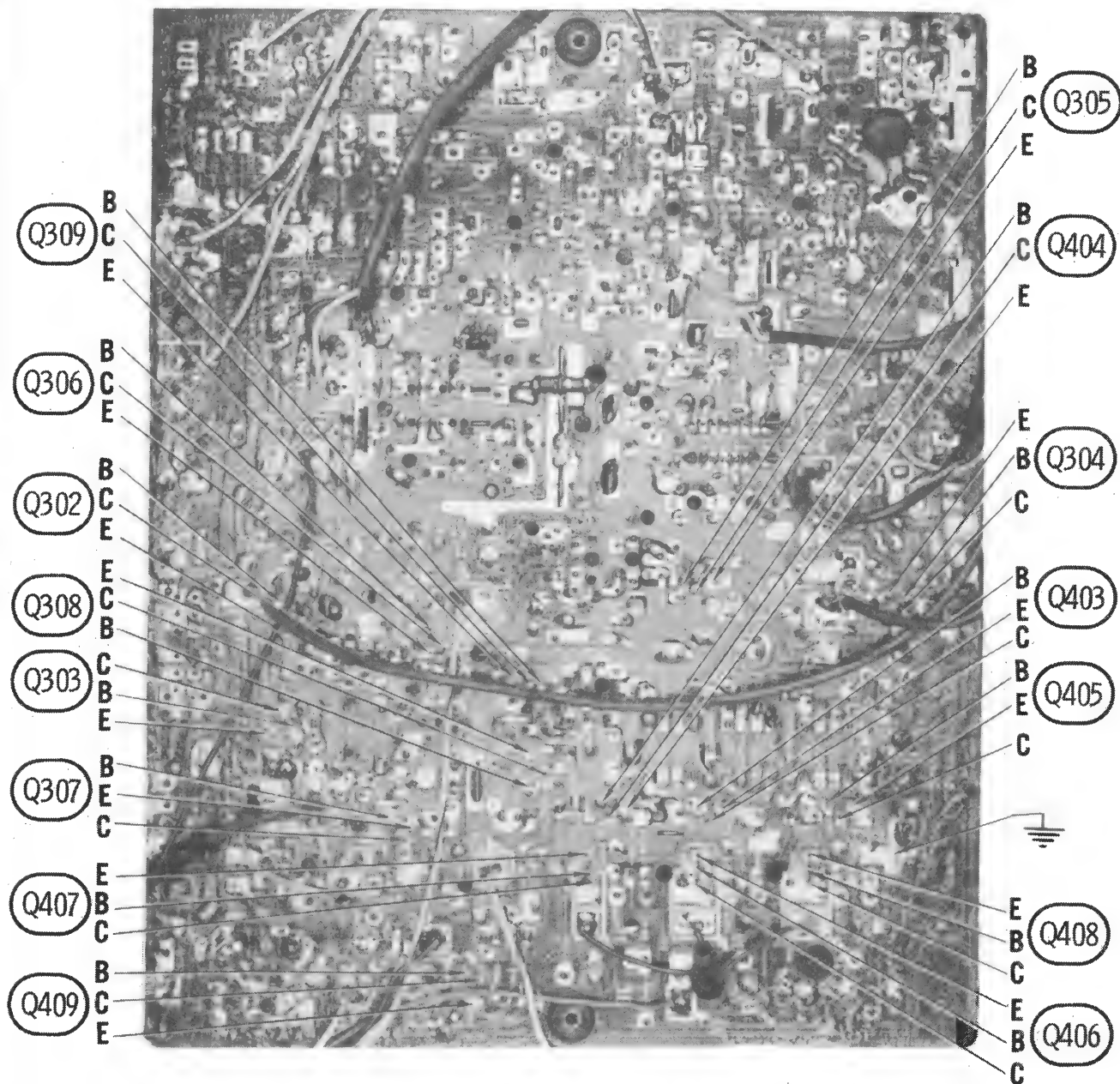
SIGNAL AND CHROMA BOARD Howard W. Sams CIRCUITRACE® Photo

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FOLDER 3



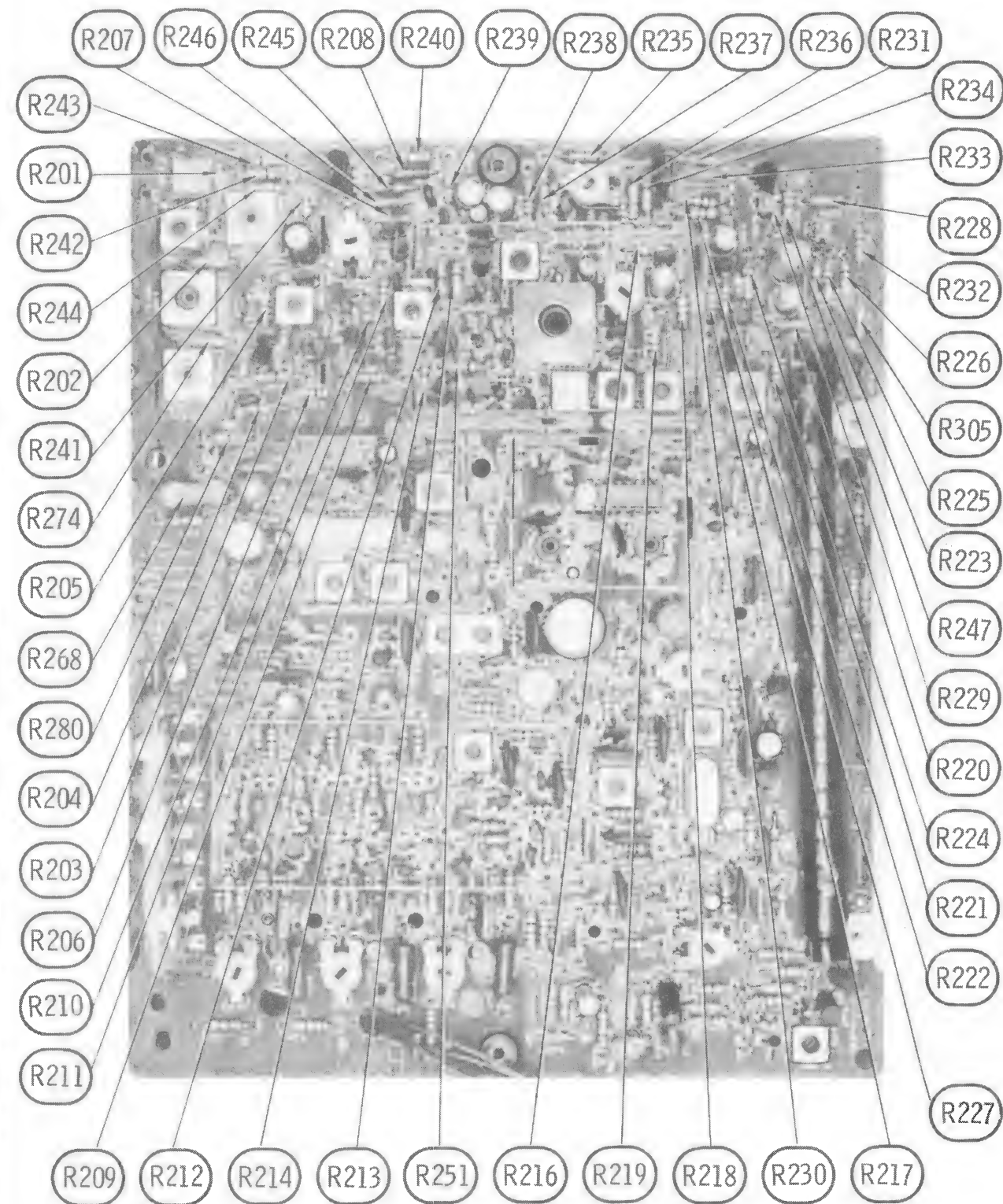
SIGNAL AND CHROMA BOARD



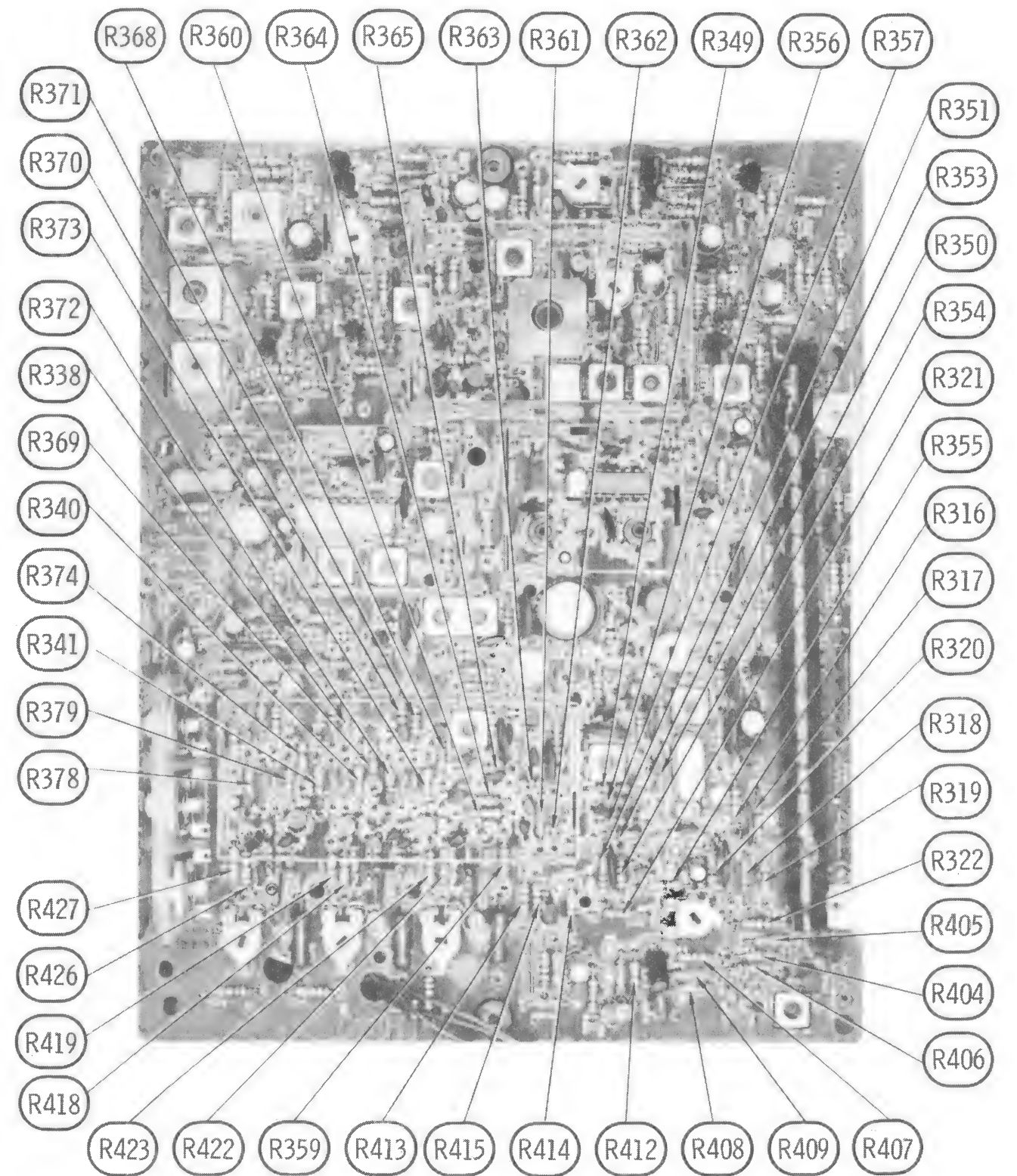
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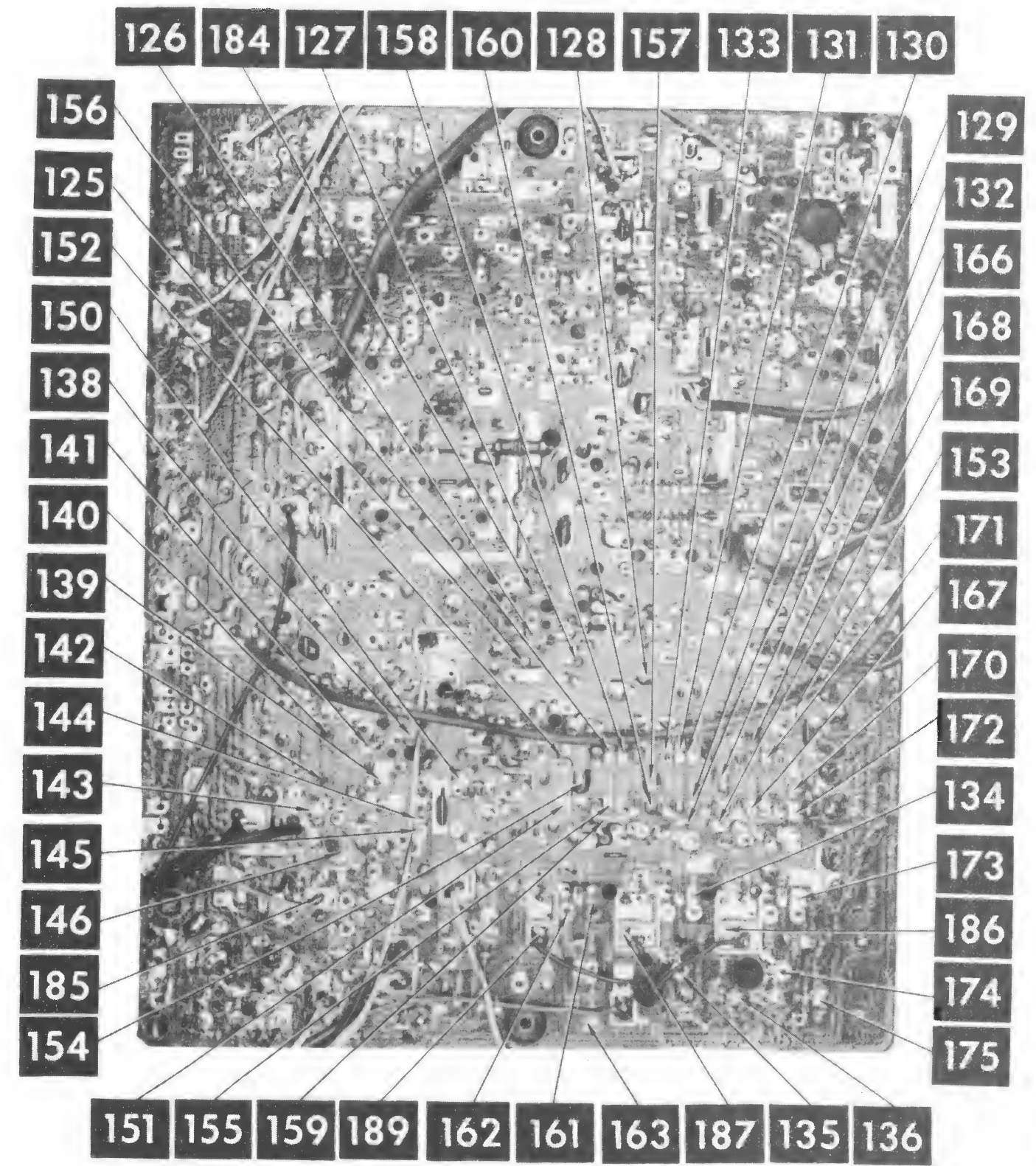
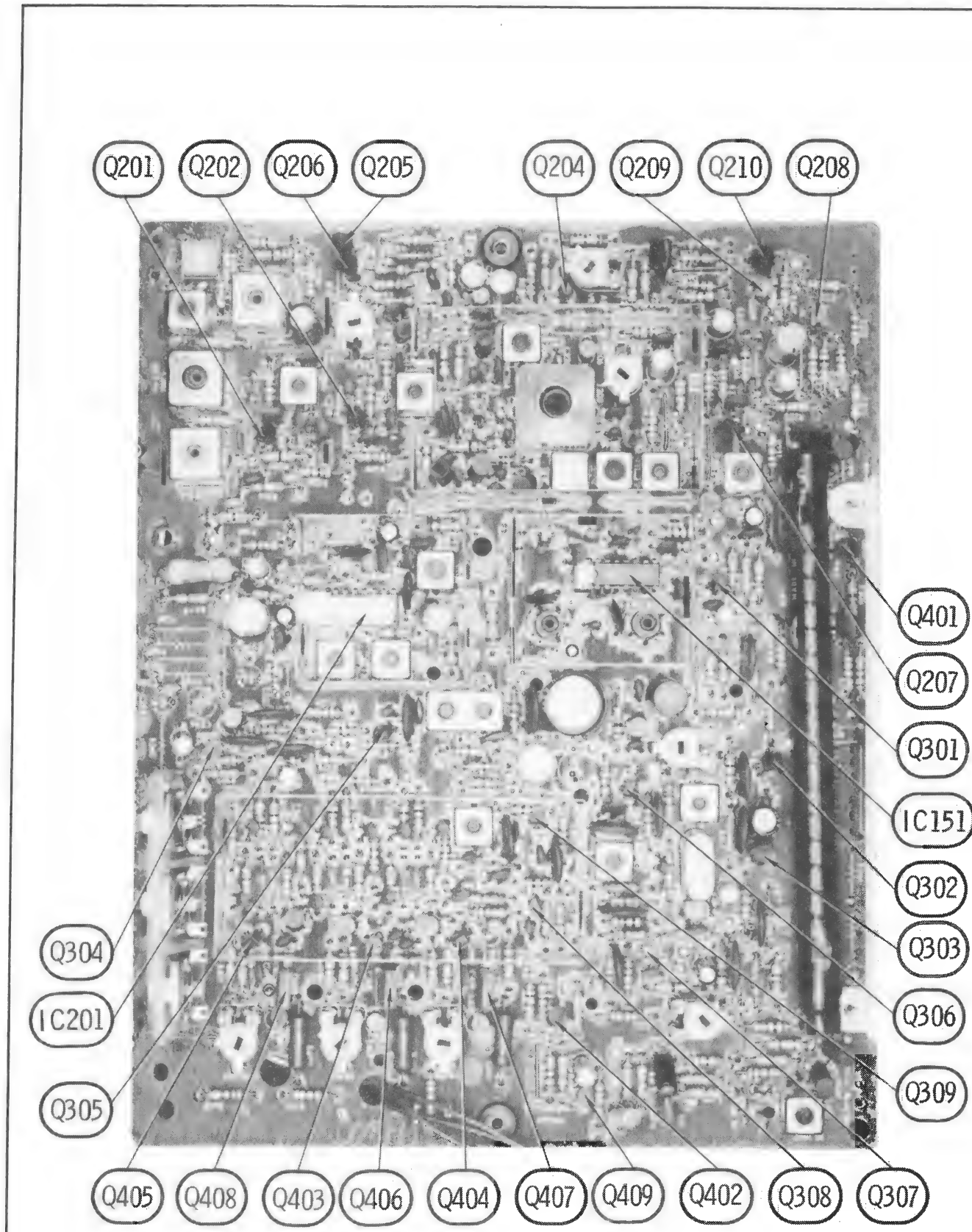
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FOLDER 3



SIGNAL AND CHROMA BOARD

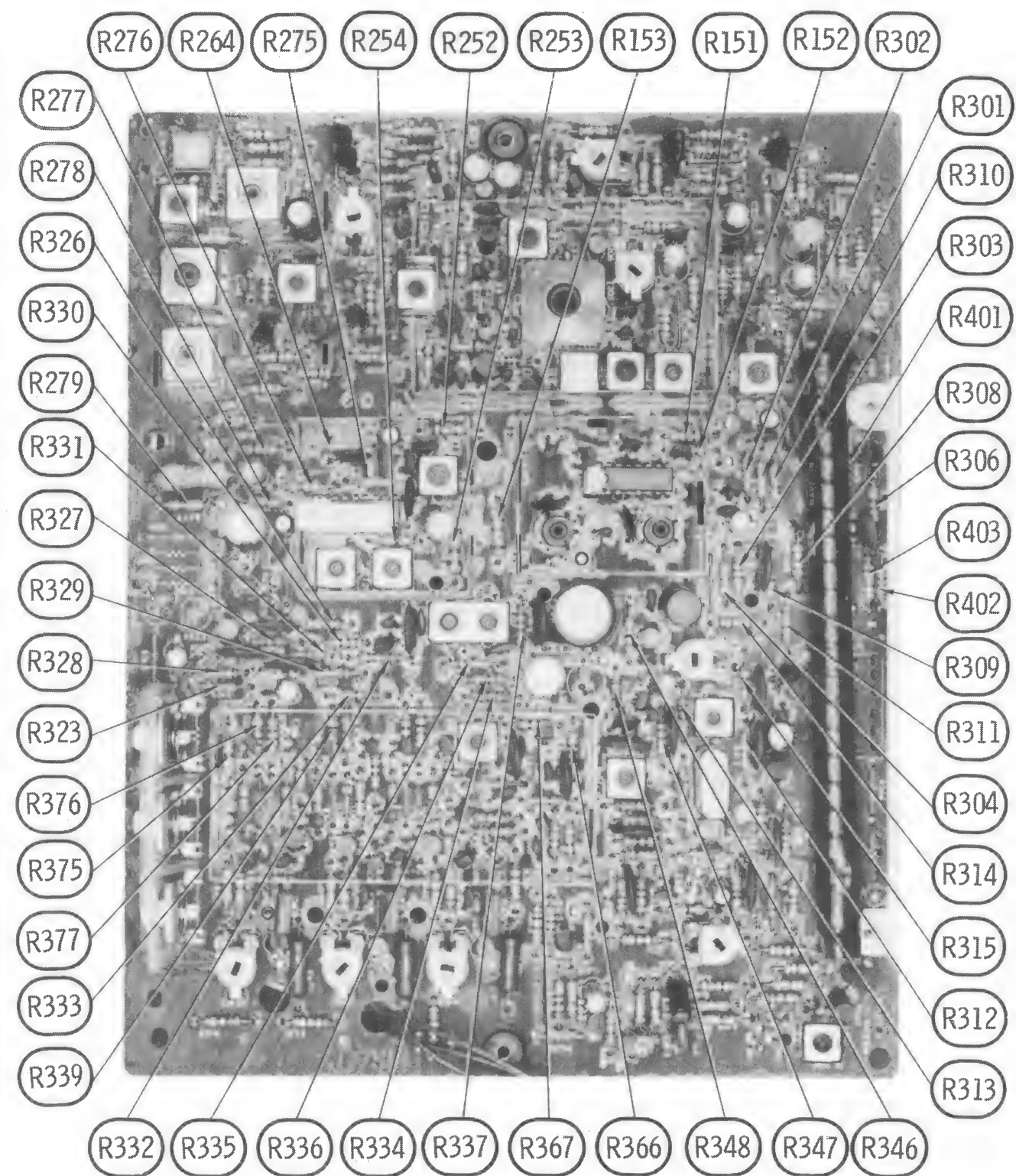




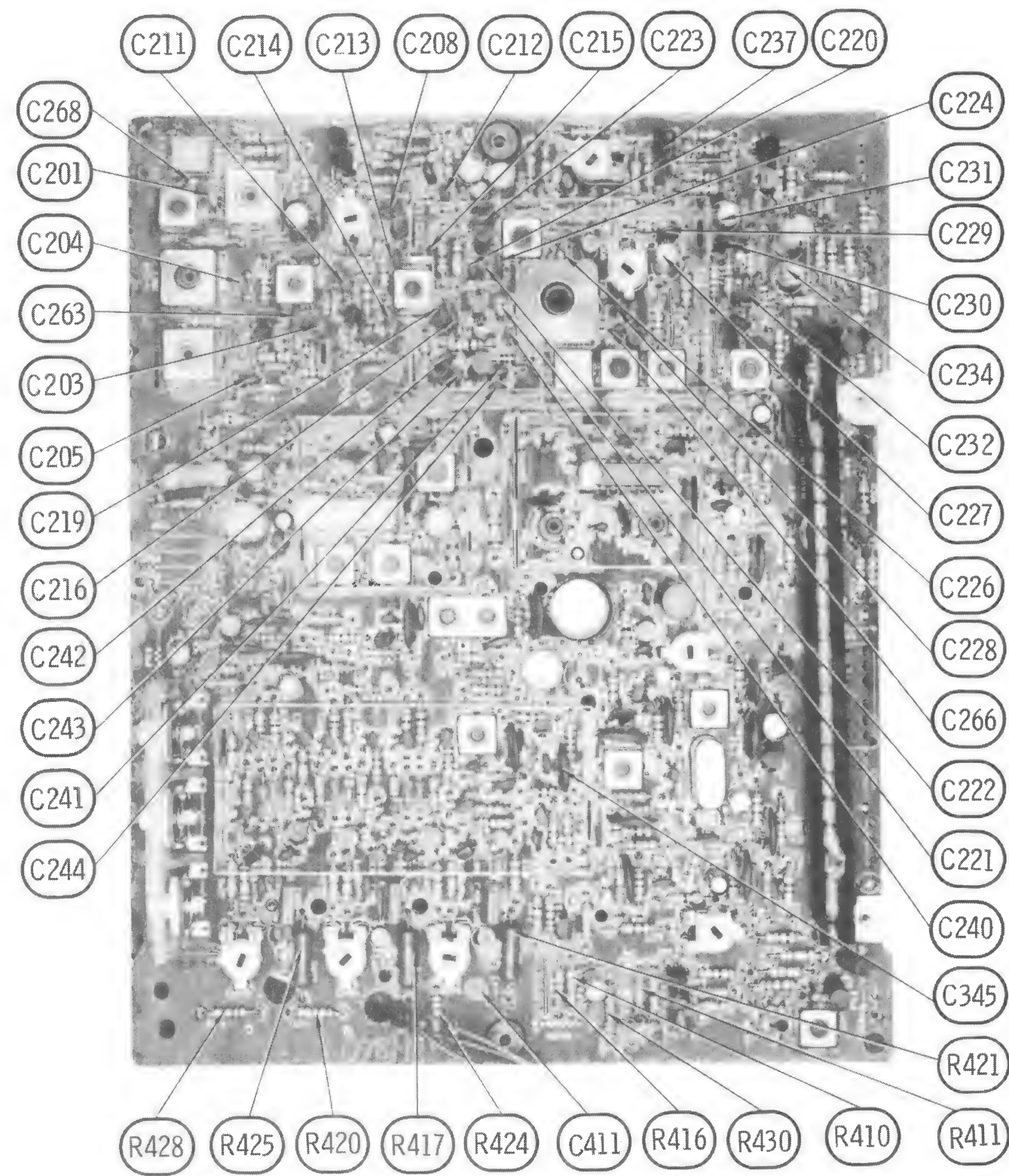
SONY CHASSIS
SCC-17A-C, SCC-17B-C

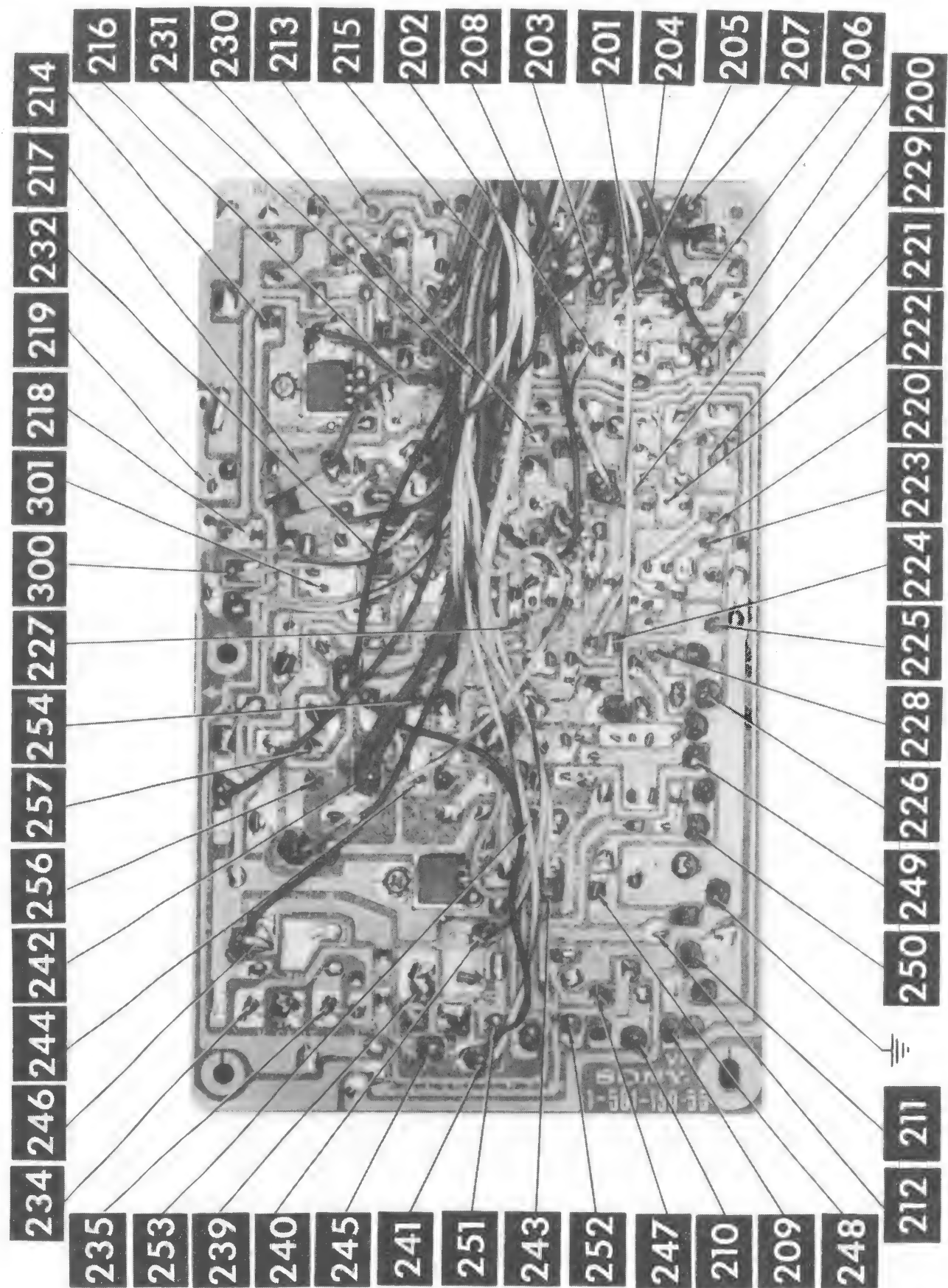
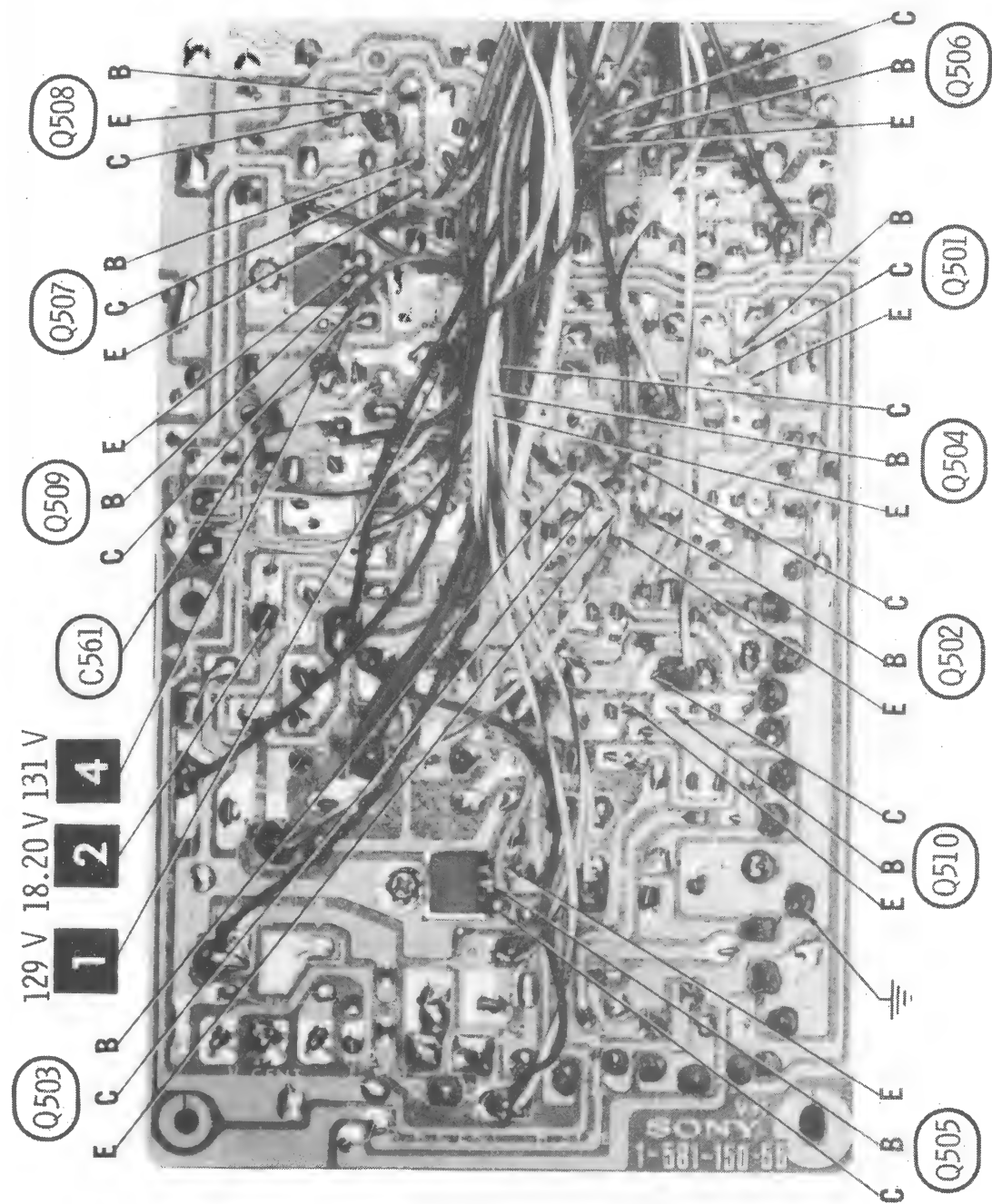
SIGNAL AND CHROMA BOARD A Howard W. Sams CIRCUITRACE® Photo

FOLDER 3



SIGNAL AND CHROMA BOARD



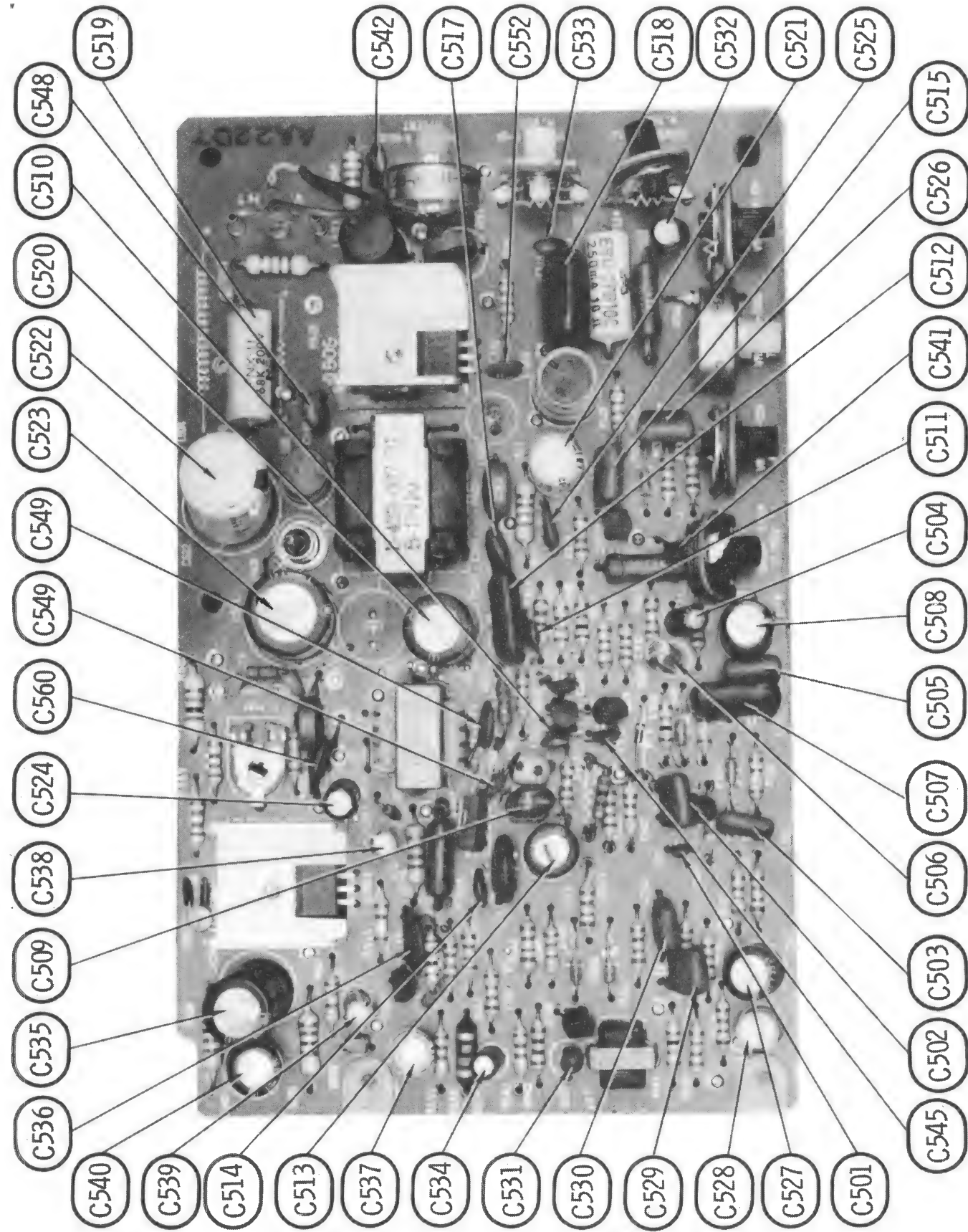
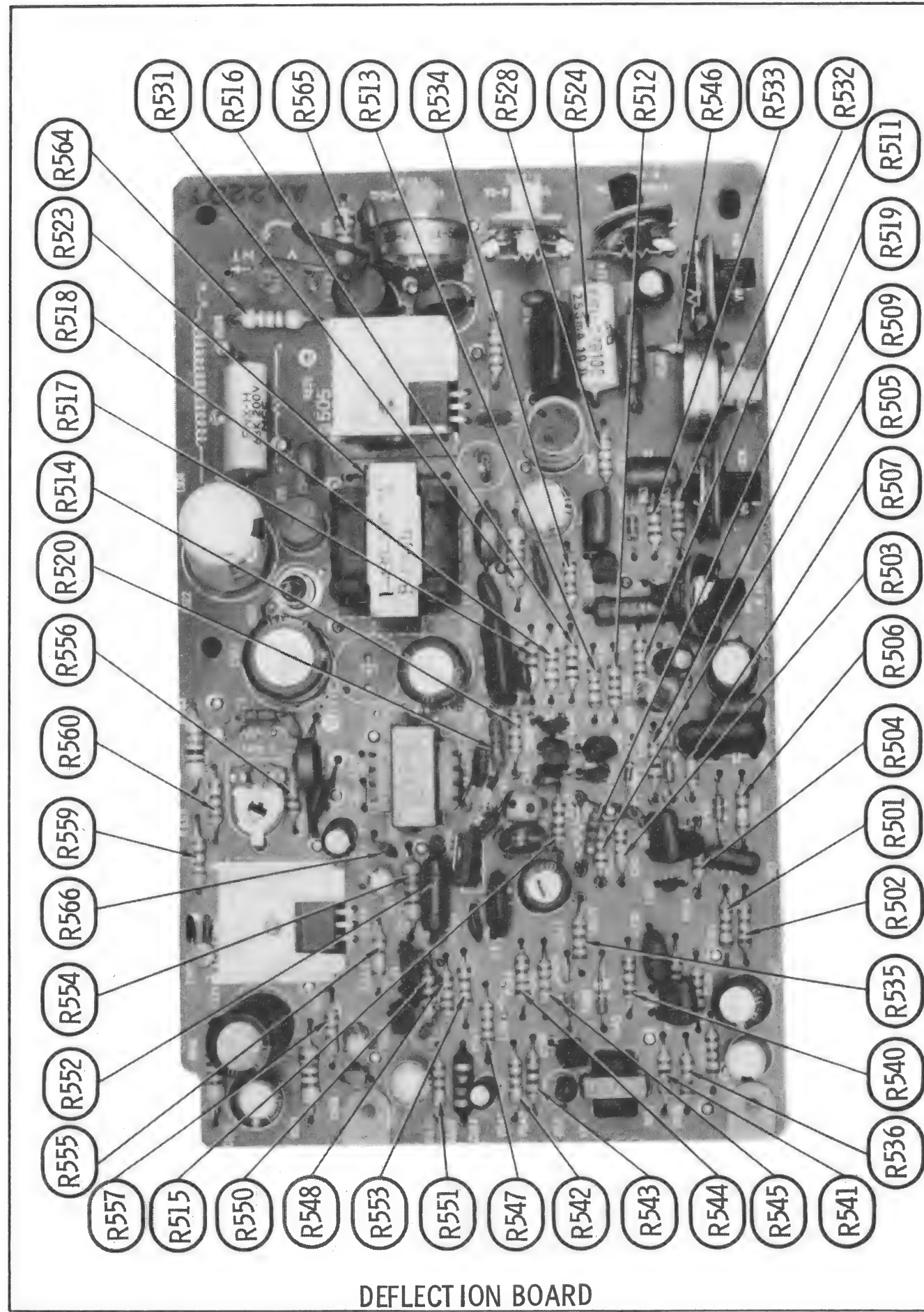


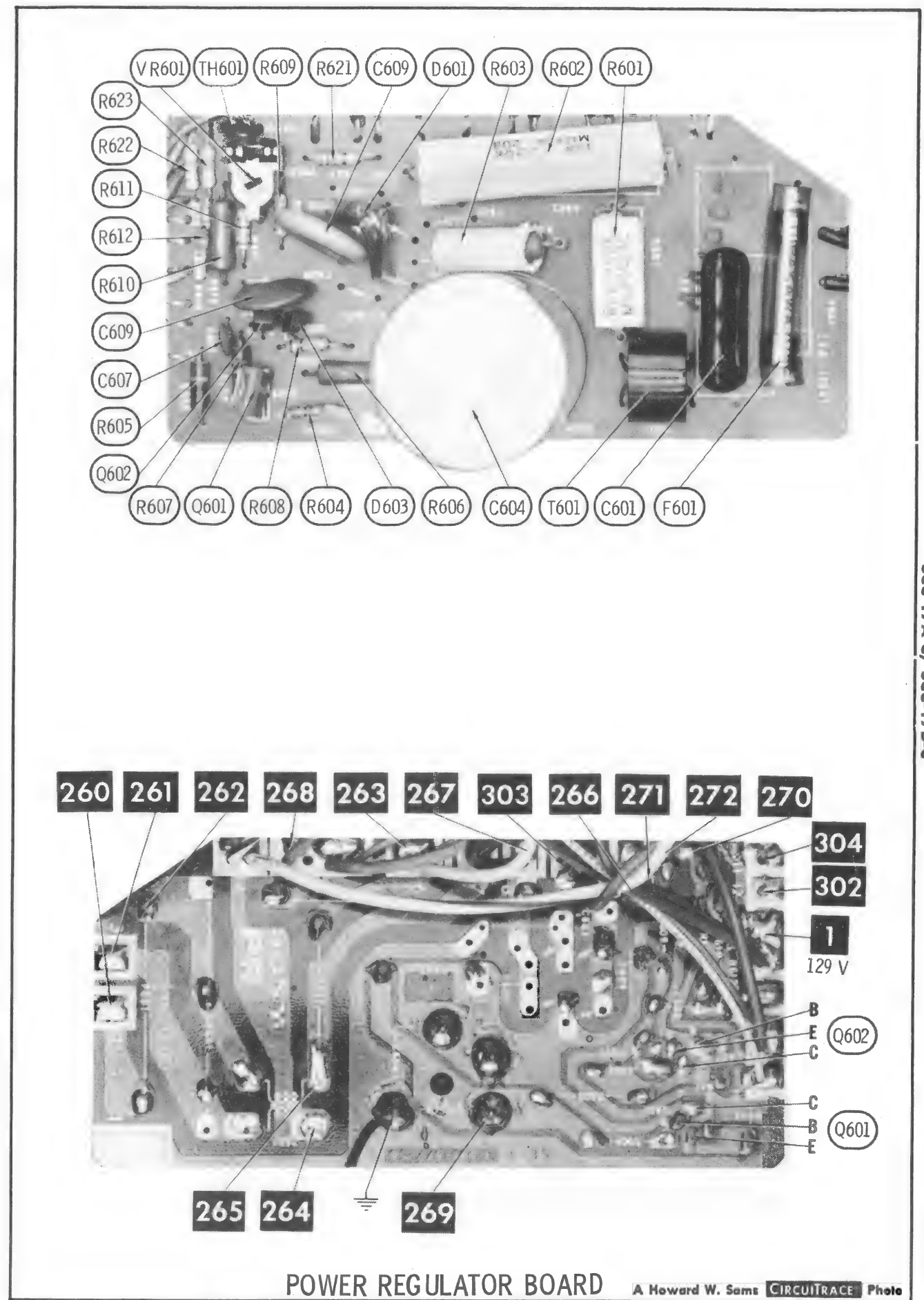
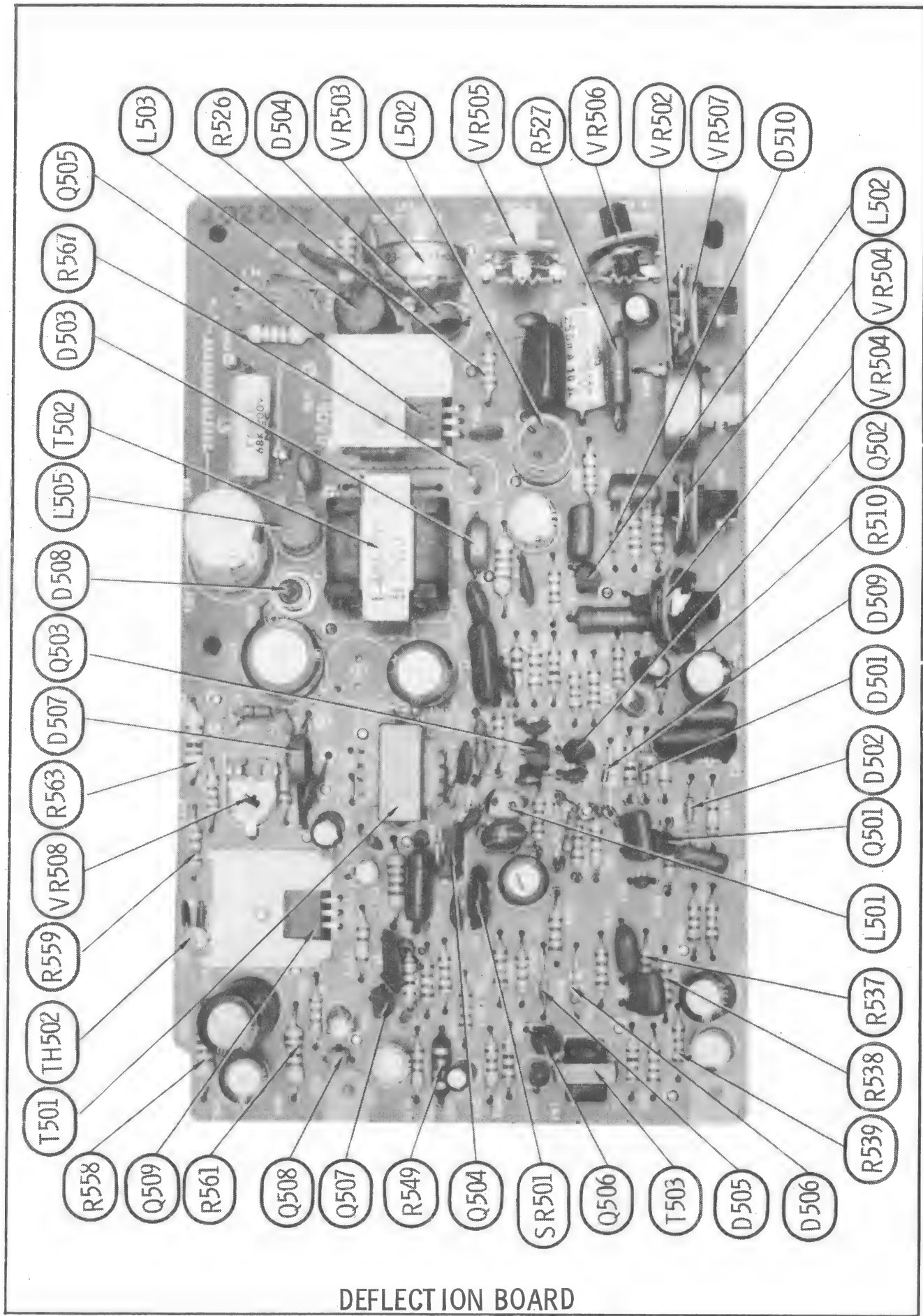
DEFLECTION BOARD

A Howard W. Sams CIRCUITRACE® Photo

SONY CHASSIS
SCC-17A-C, SCC-17B-C

FOLDER 3

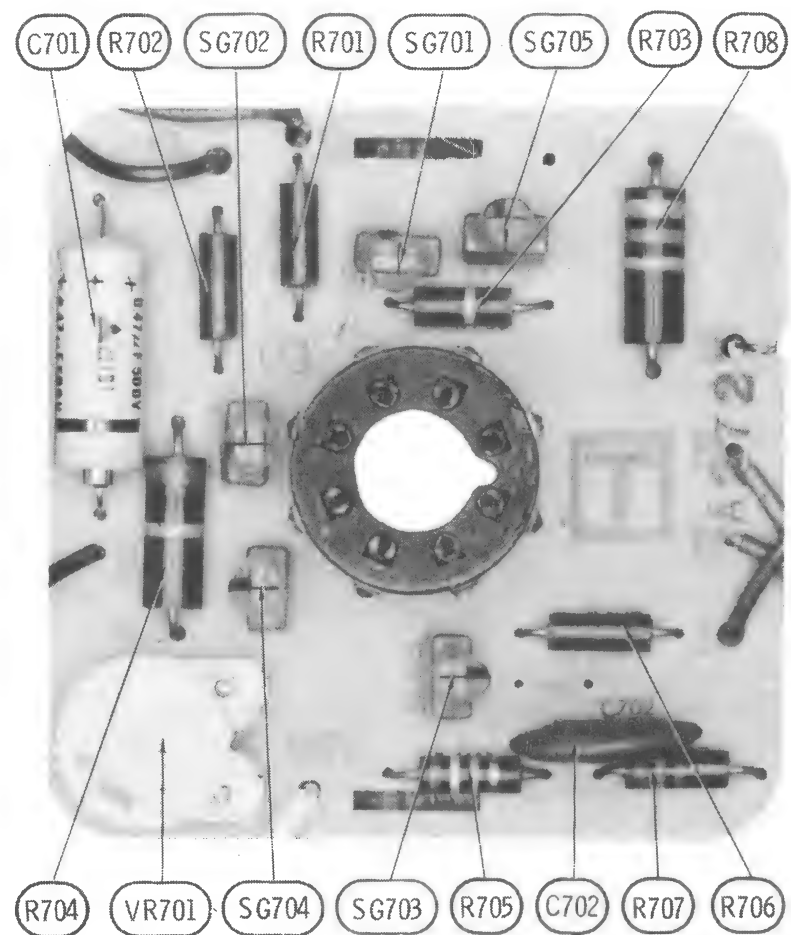




SONY CHASSIS
SCC-17A-C, SCC-17B-C

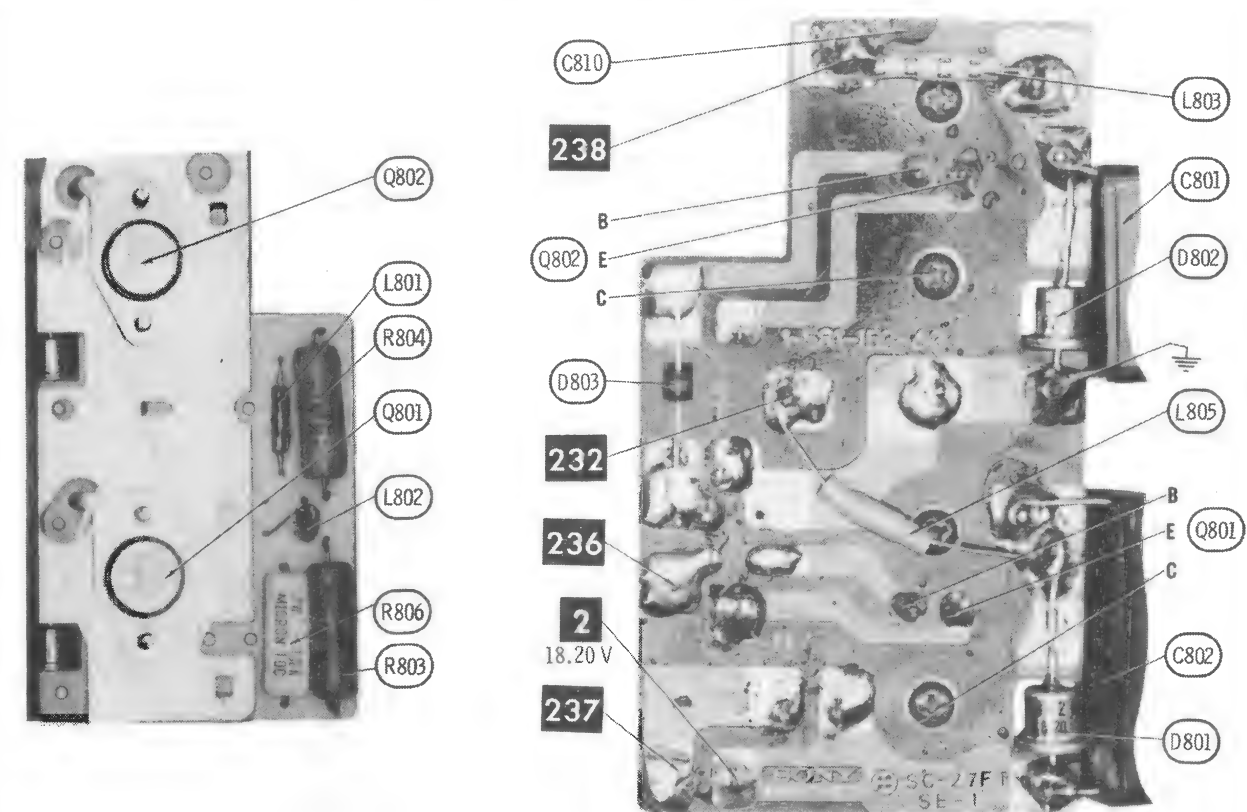
FOLDER 3

A Howard W. Sams CIRCUITRACE Photo



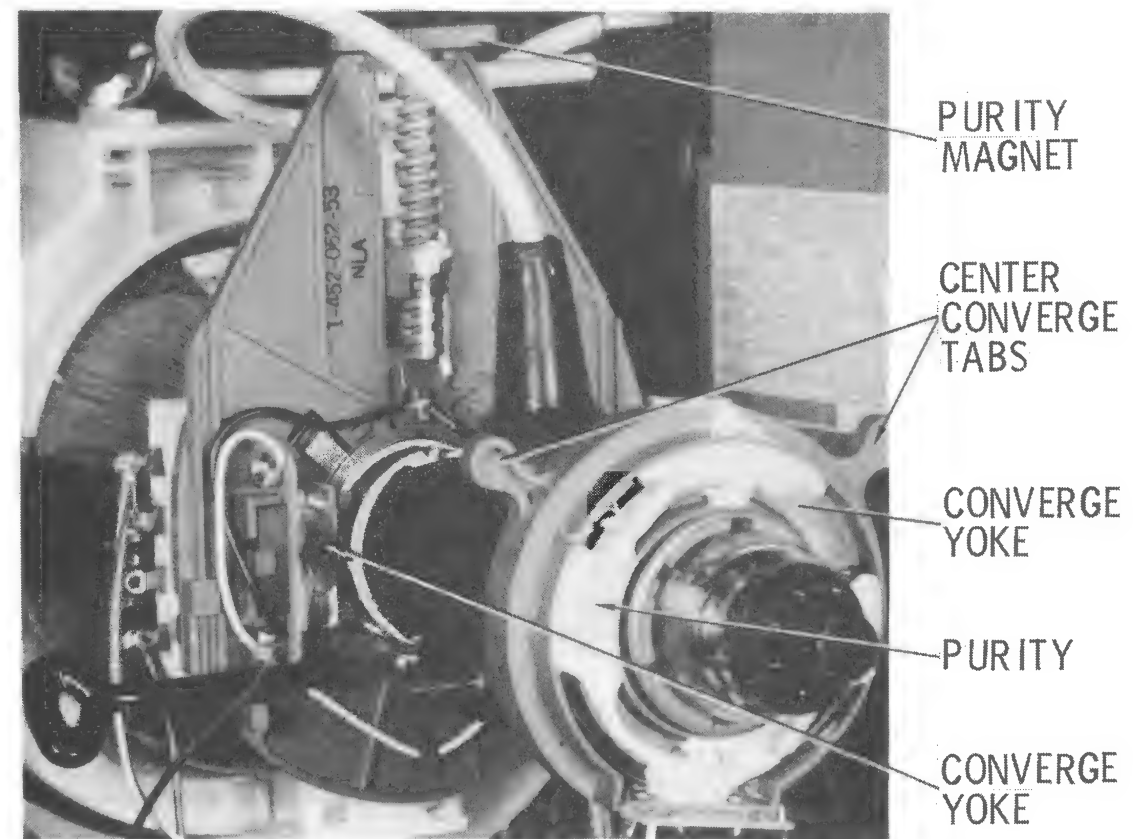
A Howard W. Sams CIRCUITRACE™ Photo

CRT SOCKET BOARD



HORIZONTAL OUTPUT-CONVERTER

A Howard W. Sams CIRCUITRACE™ Photo



CONVERGENCE

VHF TUNER PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

SEMICONDUCTORS

ITEM No.	TYPE / MFR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
Q1	SE5020	GE-11	TR-22	PTC115	HEP56	SK3018	RT107	ECG 108
Q2	2SC717	GE-11	TR-22	PTC115	HEP56	SK3018	RT107	ECG 108
Q3	SE3001	GE-11	TR-22	PTC115	HEP56	SK3018	RT107	ECG 108
Q4	2SC454	(8)						

(8) Varactor.

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENDO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	27						
C2	27						
C5	82	10%	CCT0-820	DTZ-82	NP082	CN0482	10TCC-Q82
C6	27						
C7	8.2						
C8	7						
C9	30		CCT0-300		NP08P2		10TCC-V82
C10	300	10%					10TCC-Q30
C11	180	10%	CCD-181	DD-181	GP180	GP318	10TS-T18
C12	.001						
C13	1					CN0510	10TCC-V10
C14	.002						
C15	68			DTZ-68		CN0468	10TCC-Q68
C16	7						
C17	30		CCT0-300				10TCC-Q30
C18	.001						
C19	47						
C20	15	10%	CCT0-150	DTZ-15	NP015	CN0415	10TCC-Q15
C21	33						
C22	.75						
C23	.001						
C24	51						
C25	62						
C26	10						
C27	4	NPO					
C28	7	N075	*			*	
C29	7	N470				*	
C30	1						
C31	.001						
C32	1						
C33	4	N075				*	
C34	1						
C35	2	NPO					
C36	.001						
C37	.001						
C38	1.5	NPO		DTZ-1R5	NP01P5	CN0515	10TCC-V15

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

COILS (RF-IF)

ITEM No.	USE	MFR. PART No.	NOTES
L4	FM Trap		

ITEM No.	USE	MFR. PART No.	NOTES
RFC1	RF Choke		10uh

UHF TUNER PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

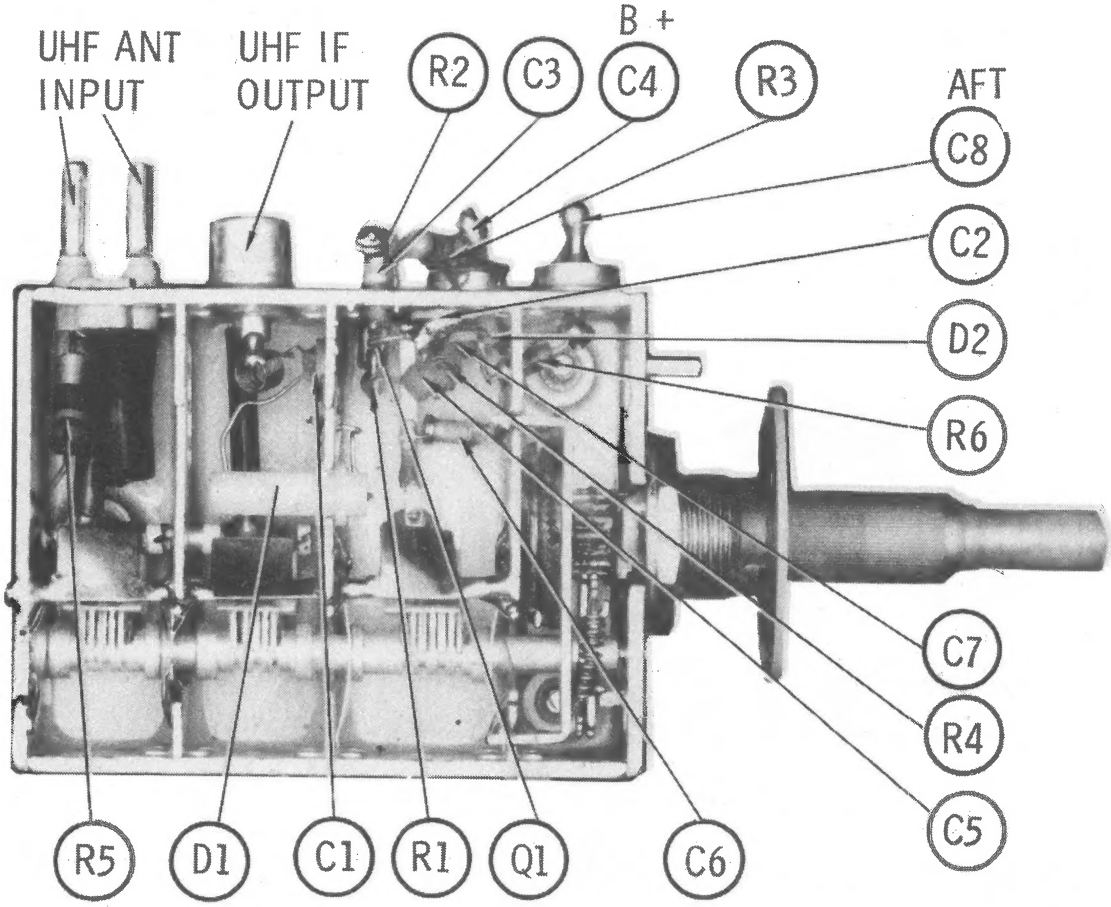
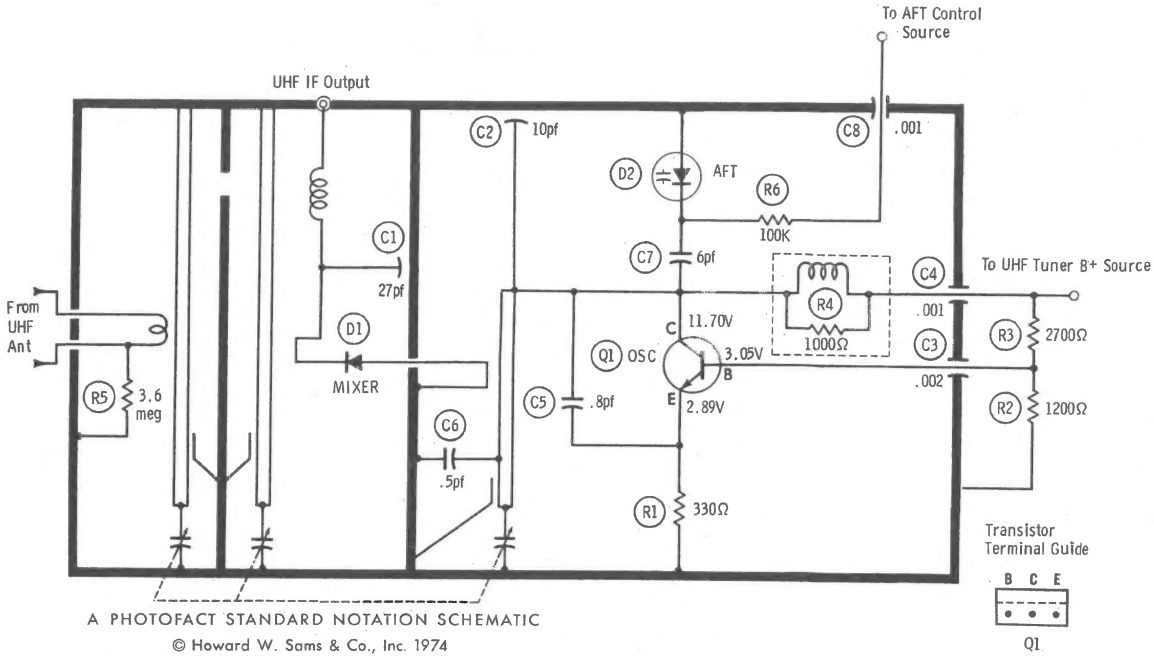
SEMICONDUCTORS

ITEM No.	TYPE / MFR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
Q1	2SC684	GE-11	1N82A	PTC133	HEP720	SK3019	RT108	ECG 108
D1	SD82A			PTC217	HEPRO700	SK3089		ECG 112
D2	1S1923A	(8)						

(8) Varactor.

CAPACITORS

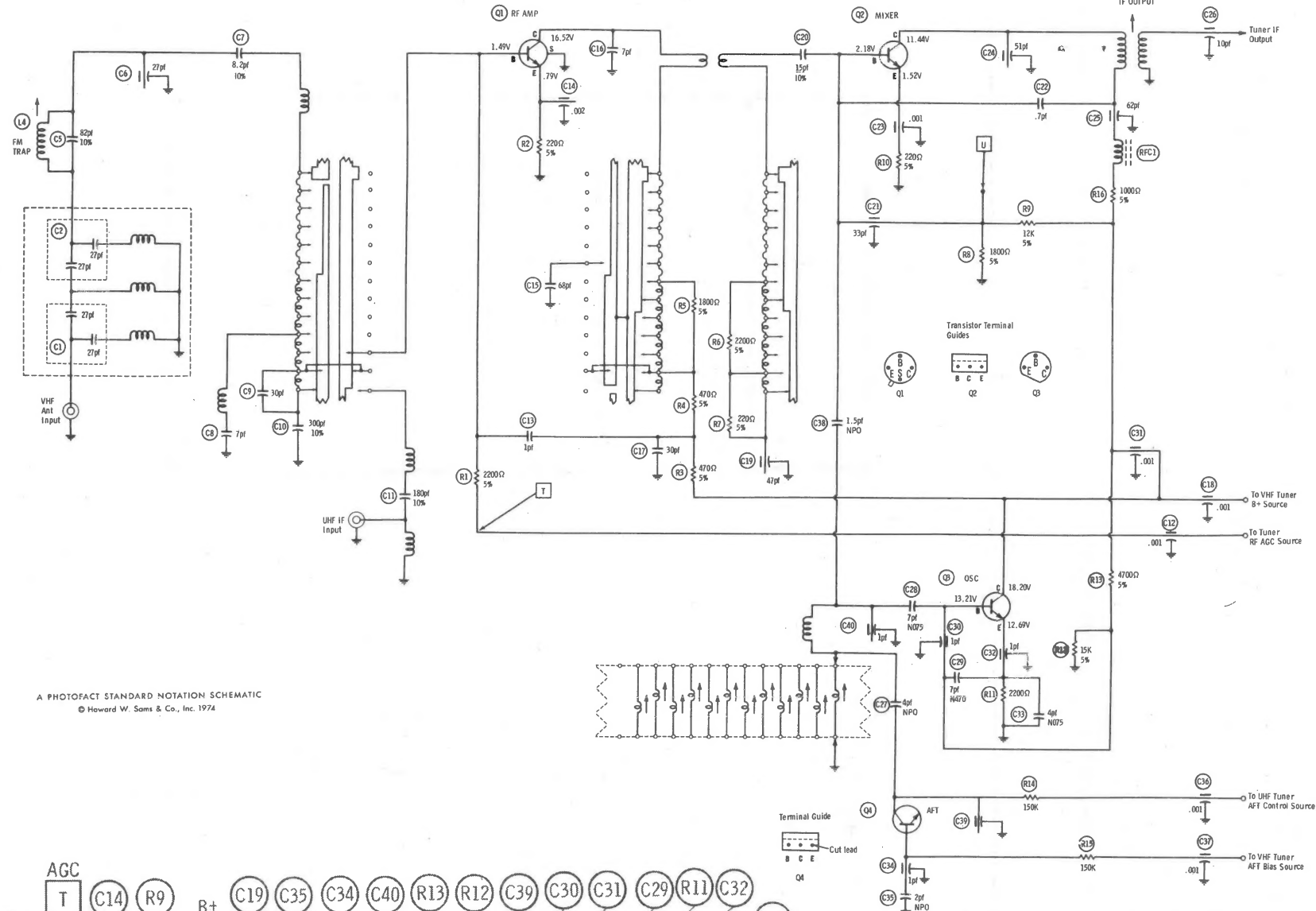
ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENDO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	27						
C2	10						
C3	.002						
C4	.001						
C5	.8						
C6	.5						
C7	6						
C8	.001						



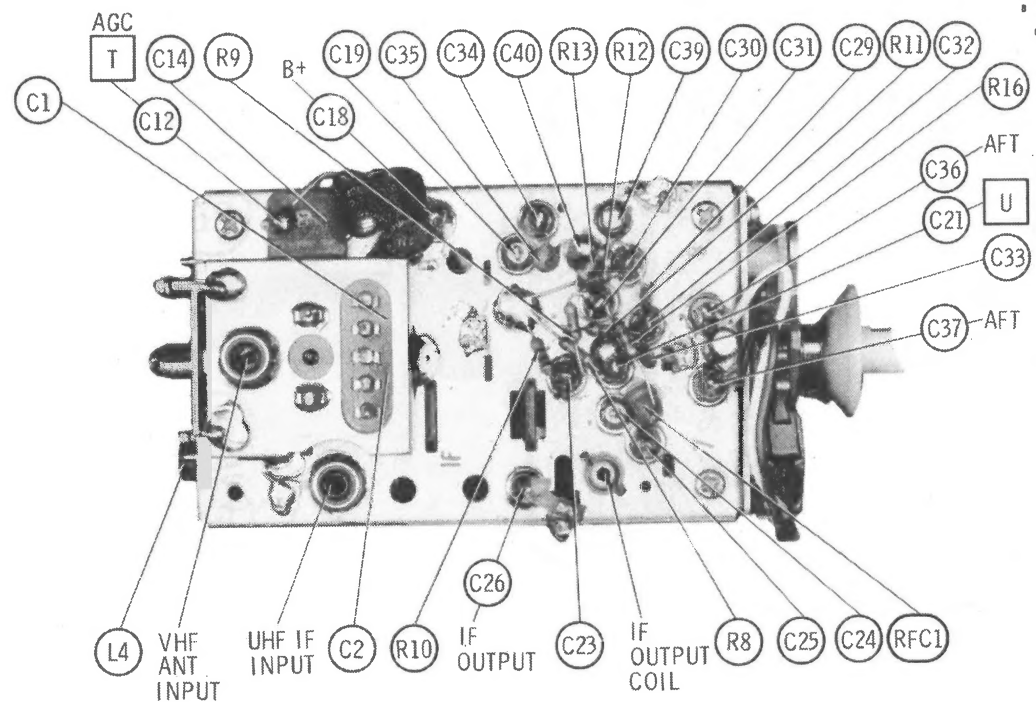
UHF TUNER BT-104

SONY CHASSIS
SCC-17A-C, SCC-17B-C

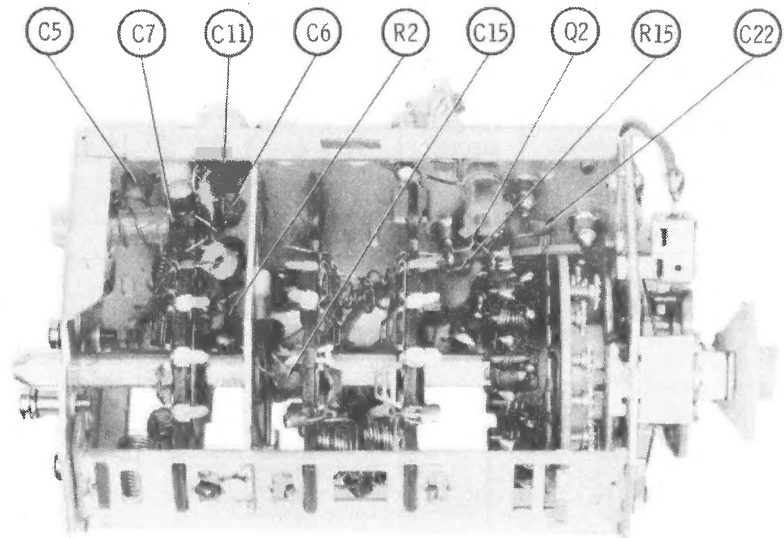
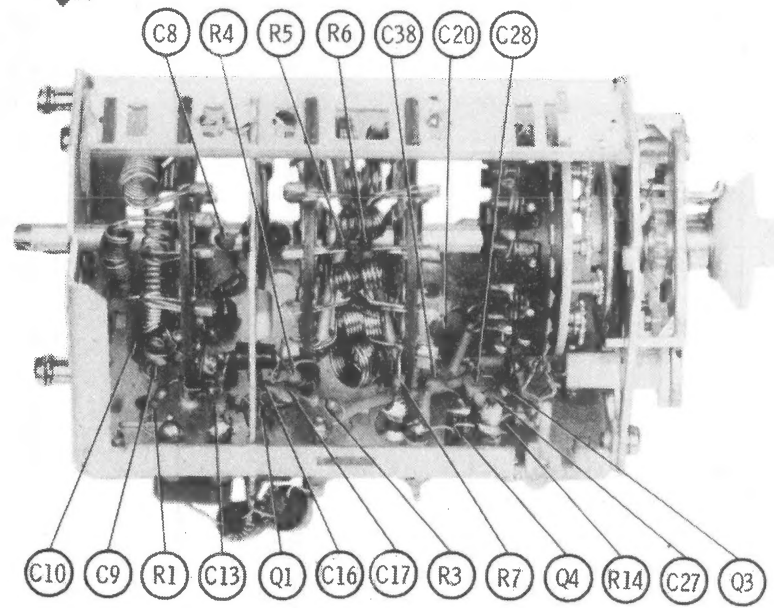
FOLDER 3



A PHOTOFAC STANDARD NOTATION SCHEMATIC
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VHF TUNER BT-604WU



VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: GENERAL CEMENT
VHF Tuner IF Output .. GC ELECTRONICS: 9296, 9297, 9300

OSCILLATOR ADJUSTMENTS

The oscillator slug for each channel is preset with the fine tuning control. Adjust the fine tuning for best picture and sound.

RF AND MIXER ADJUSTMENTS

Connect the sweep generator across antenna terminals with 120-ohm carbon resistor in each lead. Refer to chart below for generator frequencies. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the scope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect a variable bias to the RF AGC line at Point T. Adjust bias to obtain response curve showing no overload.

CHANNEL	CONNECT SCOPE	REMARKS
13	Vertical input to point U, low side to ground.	Expand or compress appropriate coils for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
12 thru 2	Vertical input to point U, low side to ground.	Check all channels and make compromise adjustments by expanding or compressing appropriate coils if necessary.

GENERATOR FREQUENCY Numbers in () indicate channel number					
SWEEP	MARKER	SWEEP	MARKER	SWEEP	MARKER
(2) 57MC	55.25MC	(6) 85MC	83.25MC	(10) 195MC	193.25MC
(3) 63MC	59.75MC	(7) 177MC	87.75MC	(11) 201MC	197.75MC
(4) 69MC	61.25MC	(8) 183MC	175.25MC	(12) 207MC	199.25MC
(5) 79MC	65.75MC	(9) 189MC	179.75MC	(13) 213MC	203.75MC
	67.25MC		181.25MC		205.25MC
	71.75MC		185.75MC		209.75MC
	77.25MC		187.25MC		211.25MC
	81.75MC		191.75MC		215.75MC

FIG. 201



PARTS LIST AND DESCRIPTION (CONTINUED)
(When ordering parts, state Model, Part Number, and Description.)
Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

ITEM No.	USE	REPLACEMENT DATA			REMARKS
		PART No.	MEISSNER PART No.	MILLER PART No.	
L401	Peaking (68 uH)	1-407-167	19-7068	74F68SA1	
L402	Peaking (68 uH)	1-407-167	19-7068	74F68SA1	
L403	Peaking (150 uH)	1-407-171	19-2026	72F15AAP	
L405	3.58 MC Trap	1-409-193			
L407	RF Choke (5.6 uH)	1-407-187	19-1008	74F566AP	
L408	RF Choke (5.6 uH)	1-407-187	19-1008	74F566AP	
L409	RF Choke (5.6 uH)	1-407-187	19-1008	74F566AP	
L501	Peaking (1.5 mH)	1-407-552		4664	
L502	Peaking (3.3 mH)	1-459-075		4668	
L503	Peaking (8.5 mH)	1-459-074		4671	
L505	Peaking (82 uH)	1-407-553	19-1015	74F82SA1	
L801	RF Choke (3.3 uH)	1-407-364		74F336AP	
L802	RF Choke (5.8 uH)	1-407-556	19-2014	74F686AP	
L803	RF Choke (3.3 uH)	1-407-364-21		74F336AP	
L805	RF Choke (3.3 uH)	1-407-364		74F336AP	
T201	Video Input IF	1-403-733			
T202	41.25 MC Trap	1-409-213			
T203	1st Video IF	1-403-550			
T204	2nd Video IF	1-403-550			
T205	41.25 MC Trap	1-409-174			
T206	3rd Video IF	1-403-524			
T207	4.5 MC Trap	1-409-146			
T208	Sound Input IF	1-403-350			
T209	Ratio Det (Pri)	1-403-372			
T210	Ratio Det (Sec)	1-403-372			
T301	Chroma Take-off	1-425-670			
T302	1st Chroma Bandpass	1-425-619			
T303	2nd Chroma Bandpass	1-425-506			
T304	Burst Amp	1-405-372			
T305	3.58 MC Osc	1-425-618			
T601	Line Choke	1-421-302-21			

ITEM No.	FUNCTION	REPLACEMENT DATA					
		MFGR. PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON MEISSNER PART No.	TRIAD PART No.	WORKMAN PART No.
L903	Convergence Yoke	(1)					
L906	Beam Alignment Coil	(1-425-039)					

(1) Part of L901.

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L901	Yoke (Horiz 1.8 mH) 90° (Vert 250mH)	1-451-076 (53)				
T501	Horiz Driver	1-437-030				
T502	Horiz Output	1-439-097 (31)				
T503	Vert Blocking Oscillator	1-435-008				
T901	Flyback	(1-439-124-11)				

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T901	117VAC Ø .020AAC	6.3VAC Ø .440AAC	1-441-764 (441-764)				

ITEM No.	IMPEDANCE		REPLACEMENT DATA				NOTES
	PRI.	SEC.	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T902	2900	8	1-427-307				

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" x 5" PM 8 ohms	299-11	35A0528	

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
F601	Fuse 4A @ 125V, Quick Acting, Pigtail	1-515-119-31		GJY4		318004	
S902	Circuit Breaker Break: 1.25A						

ITEM No.	PART NAME	PART No.	NOTES
CR101	VHF Antenna	AN-14	
CR102	VHF Tuner	1-463-070 (BT-104)	
L406	VHF Tuner	1-463-069 (BT-604WU)	
L904	Component Combination		Antenna Isolation
L905	Delay Line	1-415-042	Antenna Isolation
S6701	Degaussing Coil	1-425-574	
S6702	Degaussing Coil	1-425-674	
S6703	Spark Gap	1-519-063	
S6704	Spark Gap	1-519-063	
S6705	Spark Gap	1-519-063	
S4	Switch	AFT	
S101	Crystal	1-527-154	
X301	Magnet	1-452-039 (-61)	
	Printed Circuit Board	8-983-123-55	
	Printed Circuit Board	8-983-153-35	
	Printed Circuit Board	8-983-123-75	
	Printed Circuit Board	8-983-122-15	
	Printed Circuit Board	8-983-123-15	
	Printed Circuit Board	8-983-118-85	
	Printed Circuit Board	8-983-118-45	

ITEM	PART No.	ITEM	PART No.
Cabinet Assembly-Complete Model KV-1201	X-43050-04	Knob - On/Off/Volume	X-43050-09
Cabinet Assembly-Complete KV-1212	X-43050-10	Knob - Picture	X-43050-10
Cabinet Rear Cover-Complete KV-1212	4-305-103	Knob - Auto/AFT	4-305-035
Mask Assembly KV-1201	X-43050-01	Knob - Hue	X-43050-07
Mask Assembly KV-1212	X-43051-01	Knob - Color	X-43050-08
Knob - VHF Channel Selector	X-43050-05	Knob - Brightness	X-43028-10
Knob - VHF Fine Tuning	X-43044-06	Knob - Vert Hold	X-43028-11
Knob - UHF Tuning	X-43044-07	Handle	X-43029-04
Knob - UHF Dial	X-43050-06		

High Voltage Lead	Use BELDEN No. 8868 (25KV)
Shielded Hook-up Wire	Use BELDEN No. 8885 (Single Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Two Conductor)
300-Ohm Tuner Input Lead	Use BELDEN No. 8464 (Flat) or 8484 (Round) - 4 Conductor
300-Ohm Antenna Lead-in	Use BELDEN No. 8485 (Round) - 5 Conductor
Antenna Rotor Cable	Use BELDEN No. 8488 (Round) - 8 Conductor

PARTS LIST AND DESCRIPTION
(When ordering parts, state Model, Part Number, and Description.)
Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

ITEM No.	REPLACEMENT DATA				NOTES
	MFGR. PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V1	330AB22				

SEMICONDUCTORS		REPLACEMENT DATA						
ITEM No.	TYPE / MFGR. No./PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D201	1T261	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D202	1T40	GE-300	D200	PTC214	HEPRO602	SK3100	RT218	ECG 177
D203	1T261	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D204	1T22	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D301	1T22	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D302	1T22	1N60 (7)	1N60 (7)	PTC206 (7)	HEP135 (7)	SK3088 (7)		ECG 109 (7)
D303	1T22							
D304	1T22	1N60 (7)	1N60 (7)	PTC206 (7)	HEP135 (7)	SK3088 (7)		ECG 109 (7)
D305	1T22							
D306	1T22	1N60 (7)	1N60 (7)	PTC206 (7)	HEP135 (7)	SK3088 (7)		ECG 109 (7)
D307	1T22							
D501	1T22	1N60 (7)	1N60 (7)	PTC206 (7)	HEP135 (7)	SK3088 (7)		ECG 109 (7)
D502	1T22							
D503	HFSD-1C	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D504	HFSD-1Z	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D505	SB-2	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D506	1T22A	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D507	HFSD-1Z	GE-511	D172	PTC126	HEPR3012	SK3130		ECG 506
D508	HFSD-1Z	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D509	SB-2 (VO-9C)	GE-511	D172	PTC216	HEPR3012	SK3130	RT218	ECG 506
D510	1T22	1N60	1N60	PTC206	HEP135	SK3088		ECG 177
D601	SA-2 (VO-5E)	GE-504A	806 or 5A6D	PTC202	HEPRO054	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117
D603	MZ-12/MZ-11 12 V Zener	GEZD-12	Z-1212	PTC507	HEP20415	SK3062	RT243	ECG 142
D801	SB-2C	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D802	SB-2B	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D803	10D-05	GE-504A	804 or 5A4D	PTC201 or PTC202	HEPRO052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
D804	1-453-041-00							
IC151	CX-089D							
IC201	CX-080A							
Q201	25C1129	GE-61	TR-21	PTC121	HEP56	SK3018	RT112	ECG 161
Q202	25C1129	GE-61	TR-21	PTC121	HEP56	SK3018	RT112	ECG 161
Q203	25C1128	GE-67	TR-30	PTC103	HEP57	SK3118	RT126	ECG 129
Q204	25A736	GE-67	TR-30	PTC103	HEP57	SK3118	RT126	ECG 129
Q205	25A736	GE-67	TR-30	PTC103	HEP57	SK3118	RT126	ECG 129
Q206	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q207	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q208	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q209	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q210	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q301	25A736	GE-67	TR-30	PTC103	HEP57	SK3118	RT126	ECG 129
Q302	25C403C	GE-62	TR-21	PTC121	HEP723	SK3018	RT102	ECG 123A
Q303	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q304	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q305	25C403C	GE-62	TR-21	PTC121	HEP723	SK3018	RT102	ECG 123A
Q306	25C403C	GE-62	TR-21	PTC121	HEP723	SK3018	RT102	ECG 123A
Q307	25C403B	GE-62	TR-21	PTC121	HEP729	SK3124	RT102	ECG 128
Q308	25C403B	GE-62	TR-21	PTC121	HEP729	SK3124	RT102	ECG 128
Q309	25C403C	GE-62	TR-21	PTC121	HEP723	SK3018	RT102	ECG 123A
Q401	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q402	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q403	25A736	GE-67	TR-30	PTC103	HEP57	SK3118	RT126	ECG 129
Q404	25A736	GE-67	TR-30	PTC103	HEP57	SK3118	RT126	ECG 129
Q405	25A736	GE-67	TR-30	PTC103	HEP57	SK3118	RT126	ECG 129
Q406	25C1127	GE-27	TR-27	PTC117	HEPS3021	SK3104	RT111	ECG 190
Q407	25C1127	GE-27	TR-27	PTC117	HEPS3021	SK3104	RT111	ECG 190
Q408	25C1127	GE-27	TR-27	PTC117	HEPS3021	SK3104	RT111	ECG 190
Q409	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q501	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q502	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q503	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q504	25C1127A	GE-27	TR-27	PTC117	HEPS3021	SK3104	RT111	ECG 190
Q505	25C1124	GE-27	TR-27	PTC117	HEPS3021	SK3104	RT111	ECG 190
Q506	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q507	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q508	25C926A	GE-18	TR-25	PTC136	HEP736	SK3020	RT102	ECG 123A
Q509	25C1124	GE-27	TR-27	PTC117	HEPS3021	SK3104	RT111	ECG 190
Q510	25C1364	GE-18	TR-21	PTC136	HEP736	SK3020	RT102	ECG 123A
Q601	25C1124	GE-27	TR-27	PTC117	HEPS3021	SK3104	RT111	ECG 190
Q602	25C926A	GE-18	TR-25	PTC136	HEP736	SK3020	RT102	ECG 123A
Q801	25C1034							
Q802	25C867	GE-32	TR-23		HEP241	SK3021		ECG 124
Q901	25C867	GE-32	TR-23		HEP241	SK3021		ECG 124
Q902	25C867	GE-32	TR-23		HEP241	SK3021		ECG 124
Q903	25C867	GE-32	TR-23		HEP241	SK3021		ECG 124

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS* for the most up-to-date replacement.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA					
		MFGR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C101	10 25 V	1-121-398	RME-B-6-010	EP30-10	PC10-25	VTT10A25	EV-1322
C102	33 25 V	1-121-404	ME-4-G-035	EP30-25	PC30-25	MTV30CB25	EV-1325
C103	4.7 16 V NP						TVAN-1150
C227	33 10 V	1-121-402	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1322
C231	10 25 V	1-121-398	RME-B-6-010	EP30-10	PC10-25	VTT10A25	EV-1322
C233	33 16 V	1-121-403	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C234	33 10 V	1-121-402	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C236	1 50 V	1-121-391	RME-A-J-001	EP50-2	PC1-50	MTV1CB50	EV-1615
C238	3.3 50 V	1-121-393	ME-2-J003	EP50-5	PC5-50	MTV1CB50	EV-1615
C239	33 16 V	1-121-403	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C246	33 16 V	1-121-403	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C251	50 V	1-121-391	RME-A-J-001	EP50-2	PC1-50	MTV1CB50	EV-1615
C257	1 50 V	1-121-391	RME-A-J-001	EP50-2	PC1-50	MTV1CB50	EV-1615
C260	100 25 V		RME-G-6-100	EA30-100	PC100-25	MTV100CB25	EV-1330
C265	3.3 50 V	1-121-393	ME-2-J-003	EP50-5	PC5-50	MTV1CB50	EV-1615
C272	10 10 V	1-121-469-11	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C301	470 25 V	1-121-733	RME-A-D-010	EP15-10	PC10-25	VTT10A25	EV-1222
C307	100 6.3 V	1-121-413	RME-E-B-100	EP6-100	PC100-10	MTV100CB6	EV-1030
C309	10 16 V		RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C312	4.7 25 V	1-121-395-11	RME-A-G-005	EP30-5	PC5-50	VTT47A50	EV-1319
C320	10 16 V		RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C333	4.7 25 V	1-121-469	RME-A-D-010	EP15-10	PC10-25	VTT10A25	EV-1222
C342	1 50 V	1-121-391	RME-A-J-001	EP50-2	PC1-50	MTV1CB50	EV-1615
C364	100 16 V	1-121-415	RME-E-E-100	EP15-100	PC100-16	MTV100CB15	EV-1230
C404	2.2 50 V	1-121-450	RME-A-J-002	EP50-2	PC2-100	VTT2R2A50	EV-1517
C405	.47 50 V	1-121-726	ME-1-J-001			TC31	EV-1511
C406	.47 50 V	1-121-726	ME-1-J-001			TC31	EV-1511
C411	1 160 V	1-121-391	RME-A-J-001			TC31	EV-1511
C504	1 50 V	1-121-391	ME-3-R-001	EP50-2	PC1-50	MTV1CB50	EV-1615
C506	4.7 25 V	1-121-395	RME-A-J-001	EP50-2	PC1-50	MTV1CB50	EV-1615
C508	33 50 V	1-121-405	RME-A-G-005	EP30-5	PC5-50	VTT47A50	EV-1319
C513	4.7 160 V	1-121-246	ME-6-R-005	EP50-5	PC5-50	TC39A	EV-1525
C520	10 160 V	1-121-921-11	CTA-1310	EA30-500	PC100-10	TC52A	EV-1350
C521	4.7 100 V	1-121-918	ME-3-M-005	EP50-5	PC5-50	TC52A	EV-1350
C522	33 160 V	1-123-024-11	CTA-1335	EA30-500	PC100-10	TC52A	EV-1350
C523	470 25 V	1-121-733	RME-N-6-500	EP50-5	PC5-50	VTT47A50	EV-1319
C524	4.7 50 V	1-121-396-11	RME-B-J-005	EP50-5	PC5-50	VTT47A50	EV-1319
C527	33 50 V	1-121-405	ME-7-J-035	EP50-10	PC10-50	MTV10CB50	EV-1622
C528	10 50 V	1-121-738	RME-D-J-010	EP50-10	PC10-50	MTV10CB50	EV-1622
C531	1 16 V	1-127-307				TC106M025FL	SD20-109
C532	22 16 V	1-121-479	RME-D-E-025	EP15-25	PC25-25	MTV25CB35	SD20-109
C533	2.2 10 V	1-127-024				TC225M020EL	SD20-2K79
C534	1 50 V	1-121-391	RME-A-J-001	EP50-2	PC1-50	MTV1CB50	EV-1615
C535	20 100 V	1-121-917	RME-7-M-020	EP50-2	PC10-16	TC10200	TVAN-1339
C537	47 16 V	1-121-409	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C538	2.2 50 V	1-121-450	RME-A-J-002	EP50-2	PC2-100	VTT2R2A50	EV-1517
C539	2.2 50 V	1-121-450	RME-A-J-002	EP50-2	PC2-100	VTT2R2A50	EV-1517
C540	330 6.3 V	1-121-751	ME-B-8-300	EA6-250	WBR300-35	MTA300G50	EV-1145
C604a	470 200 V	1-125-074					
C701	.47 500 V	1-119-327					

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCOPART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
CV201	5	1-141-138					
C151	4 50V	+5					
C153	.0022 50V						
C154	.0022 50V						
C155	3 50V	+5					
C156	75 NPO	5%					
C157	82 NPO	5%					
C158	.0022 50V						
C159	.0022 50V						
C160	.001 500V						
C201	4 50V/N220/+25	1-102-043					
C202	.0022 50V	1-102-882					
C203	.0022 50V						
C204	2 50V						
C205	.0022 50V						
C206	.0022 50V						
C207	.0047 50V						
C208	.0047 50V						
C209	.0022 50V						
C211	2 50V						
C212	.0022 50V						
C213	.0022 50V						
C214	.0022 50V						
C215	.0022 50V						
C216	.0022 50V						
C219	.0022 50V						
C220	7 50V	+5					
C221	7 50V/N220	+5					
C222	33 50V	5%					
C223	.0022 50V						
C224	.0022 50V						
C225	10 50V	5%					
C226	5 50V/N220/+25	1-102-856					
C228	.0022 50V						
C229	.0022 50V						
C230	.0022 50V						
C232	470 50V						
C235	470 50V						
C237	.022 100V	10%					
C240	3 50V	+5					
C241	3 50V	+5					
C242	10 50V	5%					
C243	20 50V	5%					

CAPACITORS (cont)

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCOPART No.	CENTRALPART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C244	5				NP05		10TC-CV50
C247	.0047 50V		CCD-472	DD-4726	GP4700	JF247	10TS-D47
C248	.01 50V		CCD-103	CK-103	MGP01	TA110	TG-S10
C249	.01 50V		CCD-103	CK-103	MGP01	TA110	TG-S10
C250	.0068 100V	10%	1DP-1-682	CPR-6800J			1PB-D68
C263	.0022 50V		CCD-222	DD-222	GP2200	GP222	10TS-D22
C264	100 50V	5%	CTC0-101	DTZ-100	NP0100	CN0310	10TC-CV10
C266	5 50V	+5			NP05		10TC-CV50
C268	3 N220		*			*	10TCR-V30
C269	470 50V		CCD-471	DD-471	GP470	GP347	10TS-T47
C271	.0047 100V		6DP-1-472		DM6647	PN66247	6PS-D47
C303	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C304	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C305	4 50V						
C306	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C308	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C310	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C311	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C313	.0022 50V		CCD-222	DD-222	GP2200	GP222	10TS-D22
C314	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C316	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C318	10 50V	5%	CTC0-100	DTZ-100	NP010	CN0410	10TC-CV10
C319	82 50V/N220	5%				*	10TCR-D82
C321	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C322	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C323	150 50V/N220	5%	1-102-888			*	10TCR-T15
C324	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C325	27 50V	5%	CTC0-270		NP027	CN0427	10TC-CV27
C326	27 50V	5%	CTC0-270		NP027	CN0427	10TC-CV27
C327	22 50V	5%	CCD-220	DD-220	NP022	GP422	10TS-Q22
C328	820 50V	10%	CCD-821	DD-821	GP820	GP382	10TS-T82
C329	27 50V	5%	CTC0-270		NP027	GP422	10TC-CV27
C330	4 50V	+5	CTC0-270	DTZ-3R3	NP03P3	CN0533	10TC-CV33
C331	120 50V	5%	CCD-121	DD-121	GP121	GP312	10TS-T12
C332	.047 50V	10%	CCD-503	CK-503	MGP05	TA150	TG-S50
C334	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C335	5 50V	+5			NP05		10TC-CV50
C336	10 N220		*			*	10TCR-V10
C337	120 50V	5%	CCD-121	DD-121	GP121	GP312	10TS-T12
C338	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C339	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C341	68 50V	5%	CTC0-68	DTZ-68	CN0468	GP422	10TC-CV68
C343	22 50V	5%	CCD-220	DD-220	NP022	GP422	10TS-Q22
C345	.047 50V	5%	CCD-503	CK-503	MGP05	TA150	TG-S50
C346	.047 50V	5%	CTC0-470	DTZ-47	NP047	CN0447	10TC-CV47
C347	.047 50V	5%	CCD-503	CK-503	MGP05	TA150	TG-S50
C348	39 50V	5%				CN0439	10TC-CV39
C350	82 N750	5%	CTC0-820		N82	CN7482	10TC-CV82
C351	22 50V	5%	CCD-220	DD-220	NP022	GP422	10TS-Q22
C352	27 50V	5%	CTC0-270		NP027	CN0427	10TC-CV27
C353	22 50V	5%	CCD-220	DD-220	NP022	GP422	10TS-Q22
C354	27 50V	5%	CTC0-270		NP027	CN0427	10TC-CV27
C355	22 50V	5%	CCD-220	DD-220	NP022	GP422	10TS-Q22
C356	18 50V	5%	CTC0-180		NP018	CN0418	10TC-CV18
C357	27 50V	5%	CTC0-270		NP027	CN0427	10TC-CV27
C358	18 50V	5%	CTC0-180		NP018	CN0418	10TC-CV18
C359	27 50V	5%	CTC0-270		NP027	CN0427	10TC-CV27
C360	22 50V	5%	CCD-220	DD-220	NP022	GP422	10TS-Q22
C361	100 50V	5%	CCD-101	DD-101	GP100	GP310	10TS-T10
C362	.0022		CCD-222	DD-222	GP2200	GP222	10TS-D22
C363	470 50V	5%	CCD-471	DD-471	GP470	GP347	10TS-T47
C401	220 50V	5%	CCD-221	DD-221	GP220	GP322	10TS-T22
C402	10 N220	5%	*			*	10TCR-Q15
C403	10 N220	5%	1-102-858			*	10TCR-Q15
C408	680 50V		CCD-681	DD-681	GP680	GP368	10TS-T68
C409	680 50V		CCD-681	DD-681	GP680	GP368	10TS-T68
C410	680 50V		CCD-681	DD-681	GP680	GP368	10TS-T68
C413	.01 200V	10%	4DP-1-103	CPR-10000J	DPMS651	PVC211	225P10491W03
C501	10 50V	+5		DTZ-688	NP019	CN0410	10TC-CV10
C502	.033 100V	10%	CTC0-100		DPMS633	PVC6133	4PS-S33
C503	.033 100V	10%	4DP-2-333		DPMS633	PVC6133	4PS-S33
C505	.047 100V	10%	1DP-2-473		DPMS6547	PVC1147	225P10491W03
C507	.1 100V	10%	1DP-2-473		DPMS62P1	PVC101	225P10491W03
C509	.047 100V	5%	1DP-2-473		DPMS6547	PVC1147	225P10491W03
C510	.0047 100V	5%	6DP-1-472		DM6647	PVC6247	6PS-D47
C511	.0033 100V	5%	6DP-1-332		DMF6033	PVC6233	6PS-D33
C512	.1 100V	10%	1DP-2-104		DPMS2P1	PVC101	225P10491W03
C514	.001 500V		CTC0-102	DTZ-100	NP0100	GN0310	10TC-CV10
C515	.047 100V	10%	1DP-2-473		DPMS6547	PVC1147	225P10491W03
C517	680 1KV		CCD-681	DD-681	GP680	GP368	10TS-T68
C518	.22 100V	10%	4DP-5-224		DPMS4P22	PVC4022	4PS-P22
C519	.68 200V	10%					2PB-P68
C525	100 500V	5%	CTC0-101	DTZ-100	NP0100	CN0310	10TC-CV10
C526	.047 100V	10%	1DP-2-103		DPMS6547	PVC1147	225P10491W03
C529	.01 100V	10%	1DP-1-473	CPR-10000J	DPMS651	PVC211	225P10491W03
C530	.01 100V	10%	1DP-1-103	CPR-10000J	DPMS651	PVC211	225P10491W03
C536	.047 50V		CCD-503	CK-503	MGP05	TA150	TG-S50
C541	680 500V	10%	CCD-681	DD-681	GP680	GP368	10TS-T68
C542	.0068 200V	10%	CTC0-680J				2PB-D68
C545	100 50V	5%	CTC0-101	DTZ-100	NP0100	CN0310	10TC-CV10
C546	100 50V	5%	CTC0-101	DTZ-100	NP0100	CN0310	10TC-CV10
C548	100 2KV		3CCD-101	0D30-101	HV3-100	6HV310	30GA-T10
C549	100 500V	5%	CTC0-101	DTZ-100	NP0100	CN0310	10TC-CV10
C550	100 50V	5%	CTC0-101	DTZ-100	NP0100	CN0310	10TC-CV10
C552	.01 50V		CCD-103	CK-103	MGP01	TA110	TG-S10
C553	.001 500V		CCD-102	DD-102	GP1000	GP210	10TS-D10
C554	330 50V	5%	CCD-331	DD-331	GP330	GP333	10TS-T33
C555	330 50V	5%	CCD-331	DD-331	GP330	GP333	10TS-T33
C601	.1 450VAC		1-115-101				
C607	40 500V	5%	CCD-390	DD-390	GP10000	JF110	10TS-Q39
C608	.01 500V		CCD-103	DD-103	GP10000	JF110	10TS-S10
C609	.0047 1.4KV		1-102-189	0D30-472			30GA-47
C702	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C801	.012 1KV	5%	1-129-777		DPM20512		
C802	.0075 1.5KV	5%	1-129-859				
C804	330 2KV		3CCD-331	0D30-331	HV6-330	3HV333	30GA-T33
C805	680 1KV		CCD-681	DD-681	GP680	GP368	10TS-T68
C806	.001		CCD-102	DD-102	GP1000	GP210	10TS-D10
C809	.001		CCD-102	DD-102	GP1000	GP210	10TS-D10
C810	100 2KV		3CCD-101	0D30-101	HV3-100	6HV310	30GA-T10
C813	330 300V		CCD-331	DD-331	GP330	GP333	10TS-T33
C902	47 1KV	10%	CCD-470	DD-470	NP047	GP447	10TS-Q47
C904	560		CCD-561	DD-561	GP560	GP356	10TS-T56
C905	.015 600V						